

101053274

FILE 'HOME' ENTERED AT 14:35:20 ON 04 SEP 2003

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 14:35:29 ON 04 SEP 2003

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 2 SEP 2003 HIGHEST RN 577952-45-5

DICTIONARY FILE UPDATES: 2 SEP 2003 HIGHEST RN 577952-45-5

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STN Note 27, Searching Properties in the CAS Registry File, for complete details:

<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

\*\*\* YOU HAVE NEW MAIL \*\*\*

=>

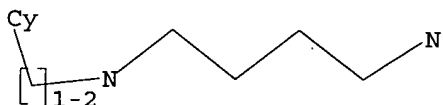
Uploading 10053274.str

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 full

FULL SEARCH INITIATED 14:35:48 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 588829 TO ITERATE

63.3% PROCESSED 373016 ITERATIONS

82021 ANSWERS

67.9% PROCESSED 400000 ITERATIONS

86881 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.31

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*

09567863

BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 588829 TO 588829  
PROJECTED ANSWERS: 126824 TO 128966

L2 86881 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
148.55	148.76

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 14:36:24 ON 04 SEP 2003  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 4 Sep 2003 VOL 139 ISS 10  
FILE LAST UPDATED: 2 Sep 2003 (20030902/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l2

L3 17936 L2

=> s l3 and fluorophore

5218 FLUOROPHORE

L4 42 L3 AND FLUOROPHORE

=> s l4 and sensor

100838 SENSOR

L5 4 L4 AND SENSOR

=> d l5 bib abs 1-4

L5 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2002:814909 CAPLUS  
DN 137:334929  
TI Circularly permuted fluorescent protein indicators for measuring the response of a **sensor** polypeptide to an environmental parameter  
IN Tsien, Roger Y.; Baird, Geoffrey  
PA USA  
SO U.S. Pat. Appl. Publ., 62 pp., Cont.-in-part of U.S. Ser. No. 316,920.  
CODEN: USXXCO  
DT Patent  
LA English  
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002157120	A1	20021024	US 2001-999745	20011023

WO 2000071565 A2 20001130 WO 2000-US13684 20000517  
 WO 2000071565 C2 20020704

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,  
 CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,  
 ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,  
 LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,  
 SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW,  
 AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,  
 DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,  
 CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1999-316920 A2 19990521  
 WO 2000-US13684 W 20000517  
 US 1999-316919 A 19990521

AB The present invention provides an isolated nucleic acid sequence that encodes a fluorescent indicator or chimeric construct, the indicator having a **sensor** polypeptide that is responsive to a chem., biol., elec. or physiol. parameter, and a fluorescent protein moiety, wherein the **sensor** polypeptide is operatively inserted into the fluorescent protein moiety, and wherein the fluorescence of the fluorescent protein moiety is affected by the responsiveness of the **sensor** polypeptide. When a **sensor** polypeptide is inserted into a fluorescent protein such as an Aequorea-related fluorescent protein (e.g., Green Fluorescent Protein (GFP), Yellow Fluorescent Protein (YFP), Cyan Fluorescent Protein (CFP), or a deriv. or mutant thereof) to form a construct, interaction of the **sensor** polypeptide with a biol., chem., elec. or physiol. parameter, for example, results in a change in fluorescence of the fluorescent protein. Such constructs are useful in measuring interactions of a **sensor** polypeptides with environmental stimuli in vitro or in vivo or in measuring particular characteristics of a cell (e.g., redox potential, intracellular ion concn.). These constructs rely on the responsiveness of a **sensor** polypeptide inserted within a GFP-**sensor**-related protein itself to influence the actual fluorescence of the **fluorophore** and not the interaction of tandem fluorescent mols. Also provided are circularly permuted fluorescent polypeptides and polynucleotides encoding the circularly permuted polypeptides. In addn., methods of using the fluorescent indicators and the circularly permuted fluorescent polypeptides are provided.

L5 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2001:598212 CAPLUS  
 DN 135:177260  
 TI FRET-based peptide biosensors for detecting anthrax lethal factor protease and Bacillus anthracis  
 IN Burroughs-Tencza, Sarah  
 PA Cellomics, Inc., USA  
 SO PCT Int. Appl., 59 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001059149	A2	20010816	WO 2001-US4253	20010209
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,				

DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2002076741 A1 20020620 US 2001-780662 20010209

PRAI US 2000-182011P P 20000211

OS MARPAT 135:177260

AB The present invention provides fluorescence resonance energy transfer (FRET)-based protease biosensor, and kits contg. them, for detecting the presence of the lethal factor protease from *Bacillus anthracis*, as well as methods for using the protease biosensors to detect the presence of *B. anthracis* in a test sample. The present protease biosensors and assays provide a significant improvement over previous biosensors and assays for detecting *B. anthracis* in a sample, by significantly improving both the speed and efficiency of the assays, and by detecting live, virulent strains of *B. anthracis*. Therefore, the biosensors of the present invention will have fewer false positives, which is desirable for a **sensor** to be used in a potentially hazardous situation.

L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:440067 CAPLUS

DN 135:211264

TI Selection of Enantioselective Acyl Transfer Catalysts from a Pooled Peptide Library through a Fluorescence-Based Activity Assay: An Approach to Kinetic Resolution of Secondary Alcohols of Broad Structural Scope

AU Copeland, Gregory T.; Miller, Scott J.

CS Department of Chemistry Merkert Chemistry Center, Boston College, Chestnut Hill, MA, 02467-3860, USA

SO Journal of the American Chemical Society (2001), 123(27), 6496-6502  
CODEN: JACSAT; ISSN: 0002-7863

PB American Chemical Society

DT Journal

LA English

OS CASREACT 135:211264

AB An assay employing a fluorescently labeled split and pool peptide library has been applied to the discovery of a new class of octapeptide catalysts for the kinetic resolu. of secondary alcs. A highly diverse library of peptide-based catalysts was synthesized on solid-phase synthesis beads such that each individual bead was co-functionalized with (i) a uniform loading of a pH-sensitive **fluorophore** and (ii) a unique peptide-based catalyst. The library was then screened for activity in acylation reactions employing (.+-.)-sec-phenylethanol as the substrate and acetic anhydride as the acylation agent. From the most active catalysts, a lead peptide Boc-Pmh-L-Asn(trt)-D-Val-L-His(trt)-D-Phe-D-Val-D-Val-L-Ala-OMe [Boc = Me<sub>3</sub>CO<sub>2</sub>C, Pmh = .pi.-(Me)-L-His, Trt = trityl] was identified that provides a selectivity-factor (krel) of 8.2 upon resynthesis and evaluation under homogeneous conditions. A "directed" second-generation split and pool peptide library was synthesized such that the new peptide sequences in the library were biased toward the lead structure. Random samples of the second generation library were screened in single bead assays that revealed several new peptide-based catalysts that afford improved selectivities in kinetic resolu. Peptide catalyst Boc-Pmh-L-Thr(tBu)-D-Val-L-His(trt)-D-Phe-D-Val-L-Thr(tBu)-L-Ile-OMe proves effective for the kinetic resolu. of sec-phenylethanol (krel = 20), as well as eight other secondary alcs. of a broad substrate scope (krel = 4 to >50).

RE.CNT 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1996:222956 CAPLUS

DN 124:337019

TI A fluorescent molecule-recognition **sensor** with a protein as an environmental factor

09567863

AU Wang, Juan; Nakamura, Asao; Hamasaki, Keita; Ikeda, Hiroshi; Ikeda,  
Tsukasa; Ueno, Akihiko  
CS Faculty Bioscience Biotechnology, Tokyo Institute Technology, Yokohama,  
226, Japan  
SO Chemistry Letters (1996), (4), 303-4  
CODEN: CMLTAG; ISSN: 0366-7022  
PB Nippon Kagakkai  
DT Journal  
LA English  
AB Modified cyclodextrin, which has p-N,N-dimethylaminobenzoyl and biotin  
units as **fluorophore** and protein-binding site, resp., exhibits  
an enhanced sensing ability for various org. compds. in aq. soln. in the  
presence of avidin.

=> d 15 bib abs hitstr 1-4

L5 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2002:814909 CAPLUS  
DN 137:334929  
TI Circularly permuted fluorescent protein indicators for measuring the  
response of a **sensor** polypeptide to an environmental parameter  
IN Tsien, Roger Y.; Baird, Geoffrey  
PA USA  
SO U.S. Pat. Appl. Publ., 62 pp., Cont.-in-part of U.S. Ser. No. 316,920.  
CODEN: USXXCO  
DT Patent  
LA English  
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002157120	A1	20021024	US 2001-999745	20011023
	WO 2000071565	A2	20001130	WO 2000-US13684	20000517
	WO 2000071565	C2	20020704		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRAI US 1999-316920 A2 19990521  
WO 2000-US13684 W 20000517  
US 1999-316919 A 19990521

AB The present invention provides an isolated nucleic acid sequence that  
encodes a fluorescent indicator or chimeric construct, the indicator  
having a **sensor** polypeptide that is responsive to a chem.,  
biol., elec. or physiol. parameter, and a fluorescent protein moiety,  
wherein the **sensor** polypeptide is operatively inserted into the  
fluorescent protein moiety, and wherein the fluorescence of the  
fluorescent protein moiety is affected by the responsiveness of the  
**sensor** polypeptide. When a **sensor** polypeptide is  
inserted into a fluorescent protein such as an Aequorea-related  
fluorescent protein (e.g., Green Fluorescent Protein (GFP), Yellow  
Fluorescent Protein (YFP), Cyan Fluorescent Protein (CFP), or a deriv. or  
mutant thereof) to form a construct, interaction of the **sensor**  
polypeptide with a biol., chem., elec. or physiol. parameter, for example,  
results in a change in fluorescence of the fluorescent protein. Such  
constructs are useful in measuring interactions of a **sensor**  
polypeptides with environmental stimuli in vitro or in vivo or in

measuring particular characteristics of a cell (e.g., redox potential, intracellular ion concn.). These constructs rely on the responsiveness of a **sensor** polypeptide inserted within a GFP-**sensor**-related protein itself to influence the actual fluorescence of the **fluorophore** and not the interaction of tandem fluorescent mols. Also provided are circularly permuted fluorescent polypeptides and polynucleotides encoding the circularly permuted fluorescent polypeptides. In addn., methods of using the fluorescent indicators and the circularly permuted fluorescent polypeptides are provided.

IT 309752-21-4 309752-23-6

RL: PRP (Properties)

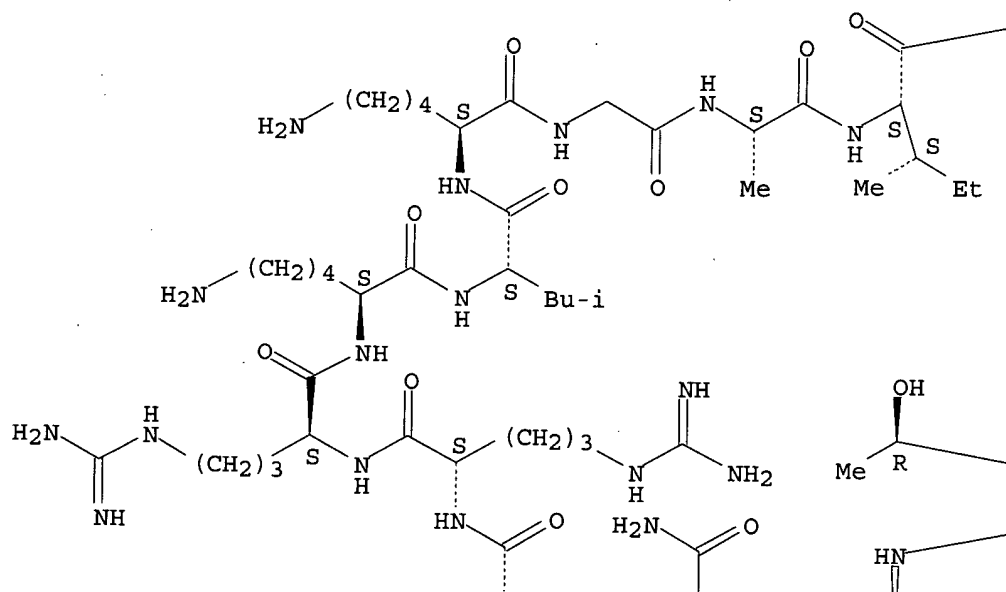
(unclaimed sequence; circularly permuted fluorescent protein indicators for measuring the response of a **sensor** polypeptide to an environmental parameter)

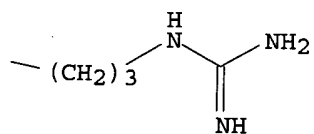
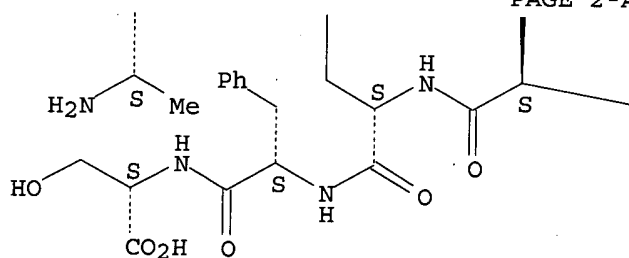
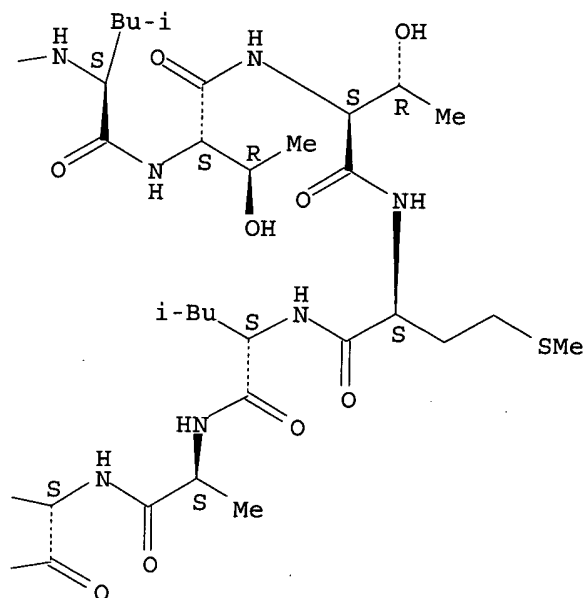
RN 309752-21-4 CAPLUS

CN L-Serine, L-alanyl-L-arginyl-L-arginyl-L-lysyl-L-leucyl-L-lysylglycyl-L-alanyl-L-isoleucyl-L-leucyl-L-threonyl-L-threonyl-L-methionyl-L-leucyl-L-alanyl-L-threonyl-L-arginyl-L-asparaginy-L-phenylalanyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

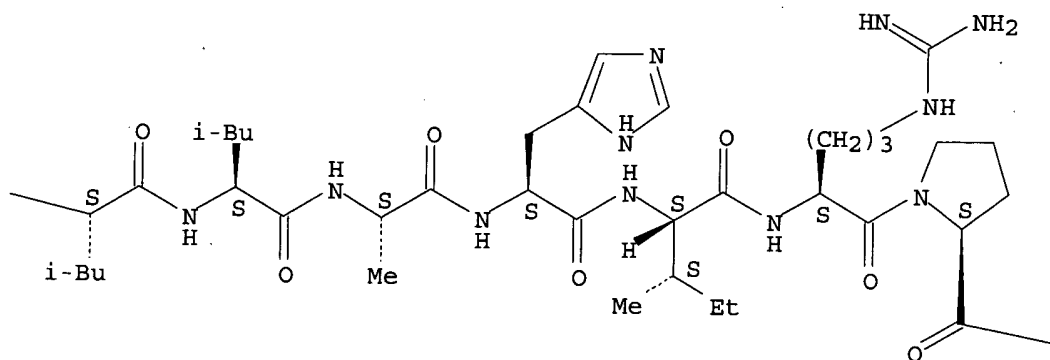
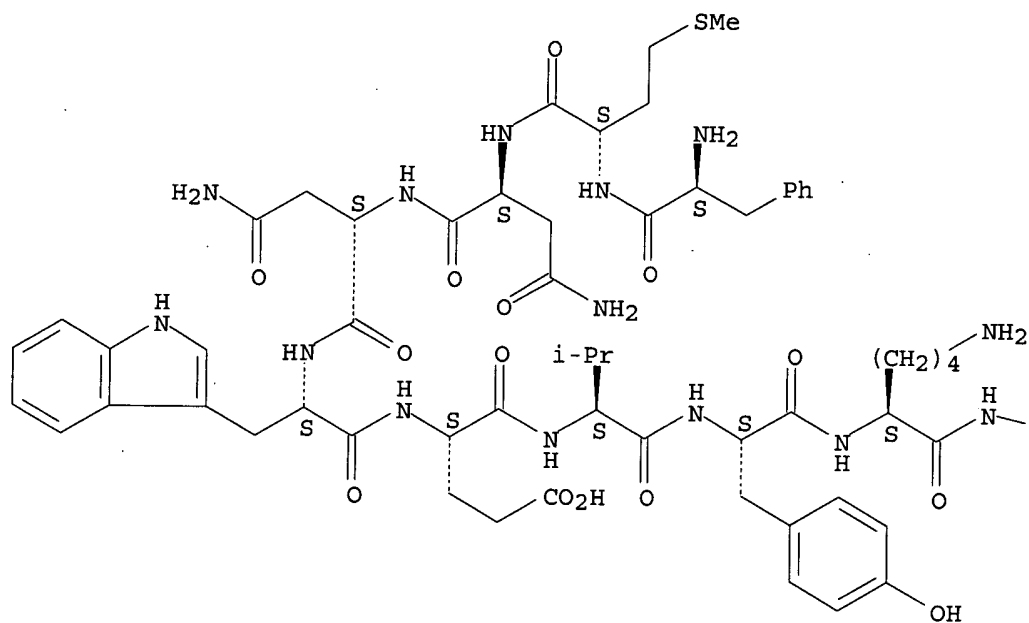
PAGE 1-A

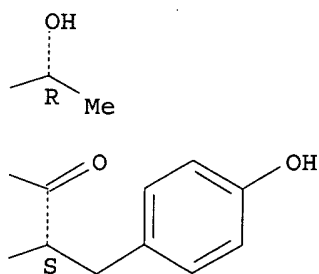
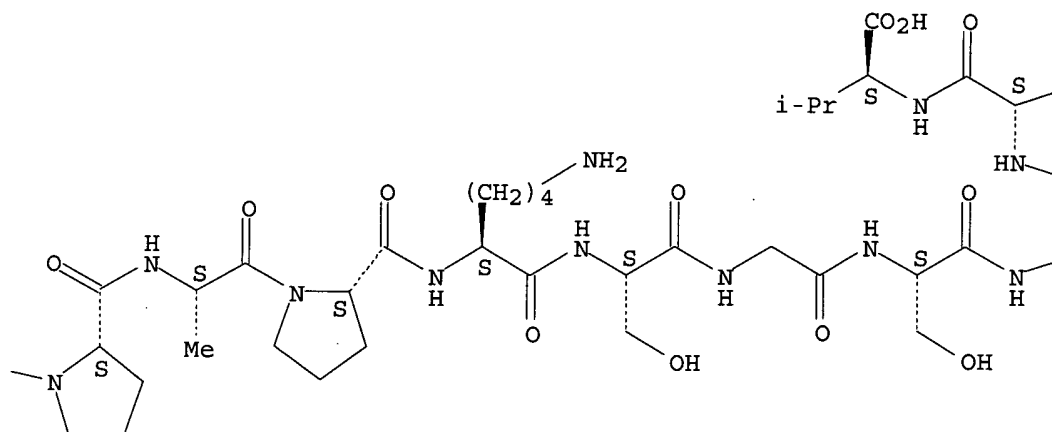




RN 309752-23-6 CAPLUS  
 CN L-Valine, L-phenylalanyl-L-methionyl-L-asparaginyl-L-asparaginyl-L-tryptophyl-L-.alpha.-glutamyl-L-valyl-L-tyrosyl-L-lysyl-L-leucyl-L-leucyl-L-alanyl-L-histidyl-L-isoleucyl-L-arginyl-L-prolyl-L-prolyl-L-alanyl-L-prolyl-L-lysyl-L-serylglycyl-L-seryl-L-tyrosyl-L-threonyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



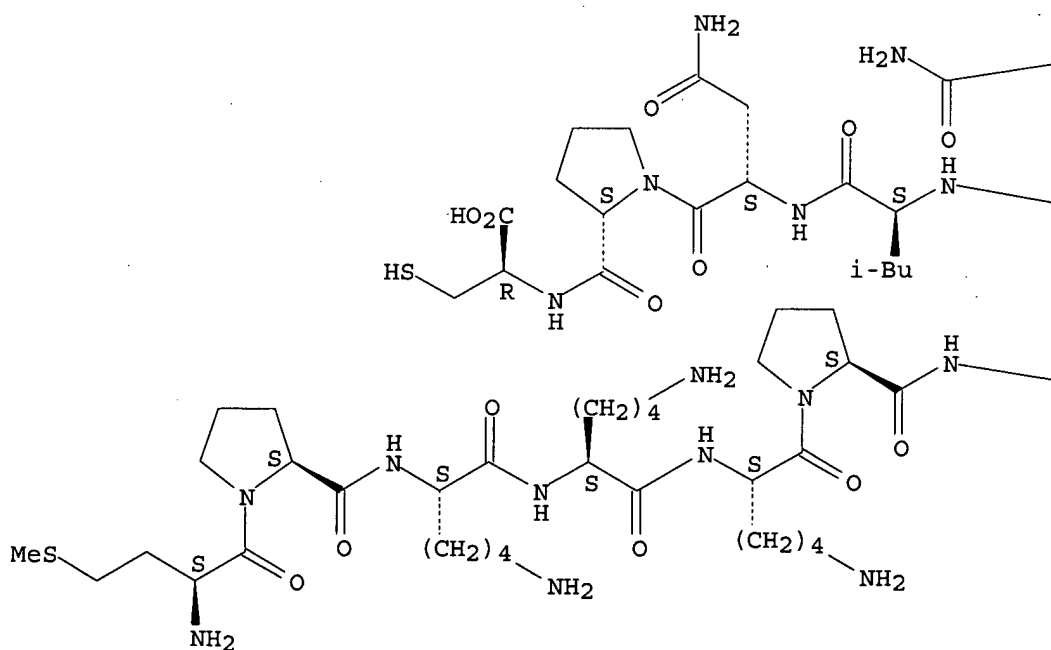


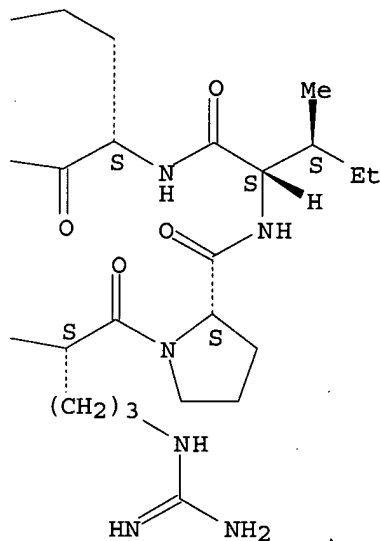
L5 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2001:598212 CAPLUS  
 DN 135:177260  
 TI FRET-based peptide biosensors for detecting anthrax lethal factor protease  
 and Bacillus anthracis  
 IN Burroughs-Tencza, Sarah  
 PA Cellomics, Inc., USA  
 SO PCT Int. Appl., 59 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1  
 PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 2001059149 A2 20010816 WO 2001-US4253 20010209  
 W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,  
 CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,  
 IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,  
 MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,  
 SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 US 2002076741 A1 20020620 US 2001-780662 20010209  
 PRAI US 2000-182011P P 20000211  
 OS MARPAT 135:177260  
 AB The present invention provides fluorescence resonance energy transfer  
 (FRET)-based protease biosensor, and kits contg. them, for detecting the  
 presence of the lethal factor protease from *Bacillus anthracis*, as well as  
 methods for using the protease biosensors to detect the presence of *B.*  
*anthracis* in a test sample. The present protease biosensors and assays  
 provide a significant improvement over previous biosensors and assays for  
 detecting *B. anthracis* in a sample, by significantly improving both the  
 speed and efficiency of the assays, and by detecting live, virulent  
 strains of *B. anthracis*. Therefore, the biosensors of the present  
 invention will have fewer false positives, which is desirable for a  
**sensor** to be used in a potentially hazardous situation.  
 IT 355367-98-5  
 RL: ARG (Analytical reagent use); DEV (Device component use); ANST  
 (Analytical study); USES (Uses)  
 (FRET-based peptide biosensors for detecting anthrax lethal factor  
 protease and *Bacillus anthracis*)  
 RN 355367-98-5 CAPLUS  
 CN L-Cysteine, L-methionyl-L-prolyl-L-lysyl-L-lysyl-L-lysyl-L-prolyl-L-  
 arginyl-L-prolyl-L-isoleucyl-L-glutaminyl-L-leucyl-L-asparaginyl-L-prolyl-  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A





L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2001:440067 CAPLUS  
 DN 135:211264  
 TI Selection of Enantioselective Acyl Transfer Catalysts from a Pooled Peptide Library through a Fluorescence-Based Activity Assay: An Approach to Kinetic Resolution of Secondary Alcohols of Broad Structural Scope  
 AU Copeland, Gregory T.; Miller, Scott J.  
 CS Department of Chemistry Merkert Chemistry Center, Boston College, Chestnut Hill, MA, 02467-3860, USA  
 SO Journal of the American Chemical Society (2001), 123(27), 6496-6502  
 CODEN: JACSAT; ISSN: 0002-7863  
 PB American Chemical Society  
 DT Journal  
 LA English  
 OS CASREACT 135:211264  
 AB An assay employing a fluorescently labeled split and pool peptide library has been applied to the discovery of a new class of octapeptide catalysts for the kinetic resolu. of secondary alcs. A highly diverse library of peptide-based catalysts was synthesized on solid-phase synthesis beads such that each individual bead was co-functionalized with (i) a uniform loading of a pH-sensitive **fluorophore** and (ii) a unique peptide-based catalyst. The library was then screened for activity in acylation reactions employing (+-)-sec-phenylethanol as the substrate and acetic anhydride as the acylation agent. From the most active catalysts, a lead peptide Boc-Pmh-L-Asn(trt)-D-Val-L-His(trt)-D-Phe-D-Val-D-Val-L-Ala-OMe [Boc = Me<sub>3</sub>CO<sub>2</sub>C, Pmh = .pi.-(Me)-L-His, Trt = trityl] was identified that provides a selectivity-factor (k<sub>rel</sub>) of 8.2 upon resynthesis and evaluation under homogeneous conditions. A "directed" second-generation split and pool peptide library was synthesized such that the new peptide sequences in the library were biased toward the lead structure. Random samples of the second generation library were screened in single bead assays that revealed several new peptide-based catalysts that afford improved selectivities in kinetic resolu. Peptide catalyst Boc-Pmh-L-Thr(tBu)-D-Val-L-His(trt)-D-Phe-D-Val-L-Thr(tBu)-L-Ile-OMe

09567863

proves effective for the kinetic resolu. of sec-phenylethanol (krel = 20), as well as eight other secondary alcs. of a broad substrate scope (krel = 4 to >50).

IT 357426-62-1P 357426-64-3P 357426-66-5P

357426-68-7P 357426-69-8P 357426-70-1P

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);

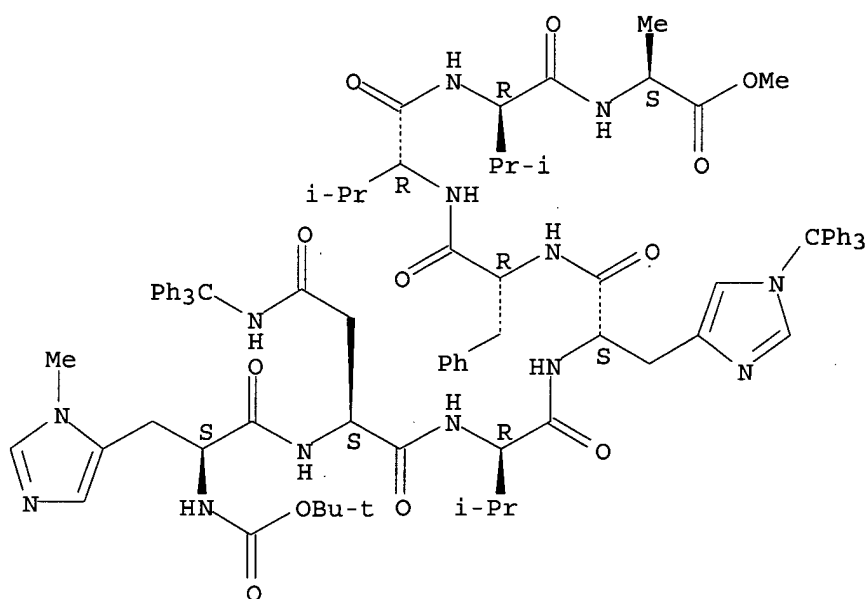
USES (Uses)

(prepn. of octapeptide catalysts for kinetic resolu. of secondary alcs.)

RN 357426-62-1 CAPLUS

CN L-Alanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-N-(triphenylmethyl)-L-asparaginyl-D-valyl-1-(triphenylmethyl)-L-histidyl-D-phenylalanyl-D-valyl-D-valyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

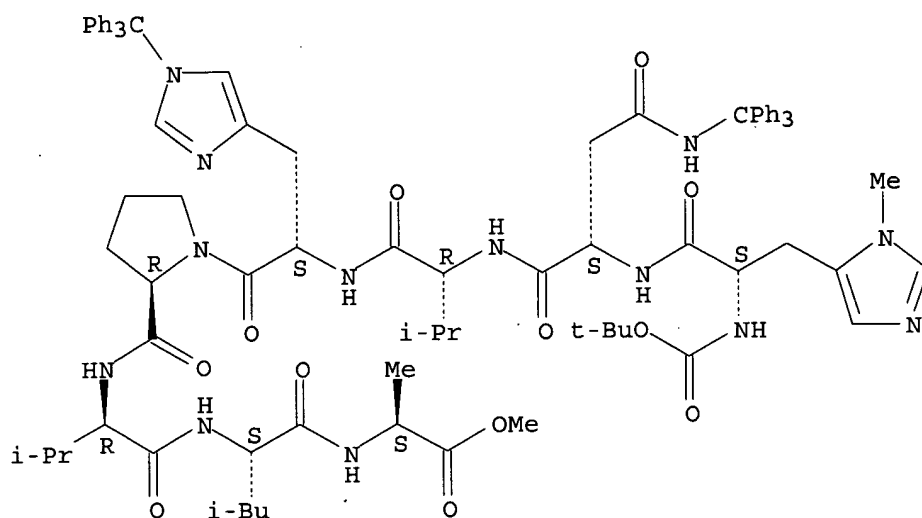


RN 357426-64-3 CAPLUS

CN L-Alanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-N-(triphenylmethyl)-L-asparaginyl-D-valyl-1-(triphenylmethyl)-L-histidyl-D-prolyl-D-valyl-L-leucyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

09567863

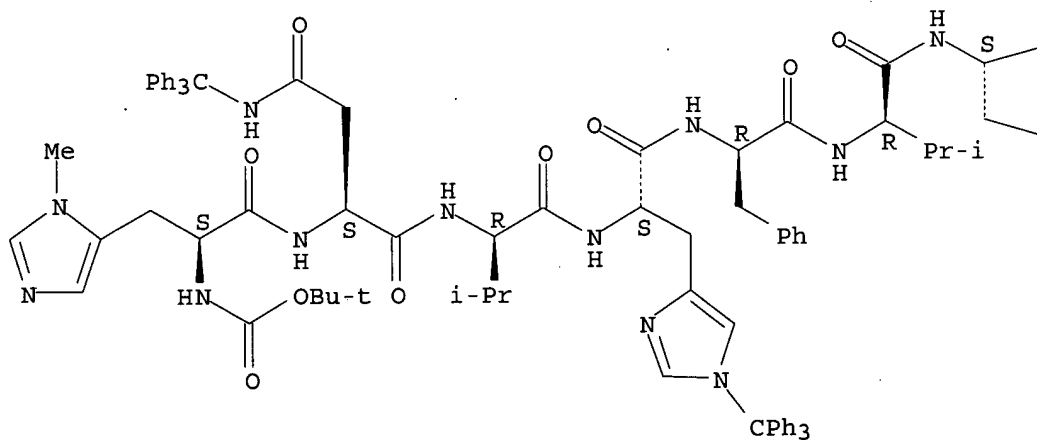


RN 357426-66-5 CAPLUS

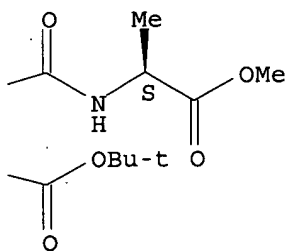
CN L-Alanine, N-[(1,1-dimethylethoxy) carbonyl]-3-methyl-L-histidyl-N-(triphenylmethyl)-L-asparaginyl-D-valyl-1-(triphenylmethyl)-L-histidyl-D-phenylalanyl-D-valyl-L-.alpha.-aspartyl-, 7-(1,1-dimethylethyl) 8-methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



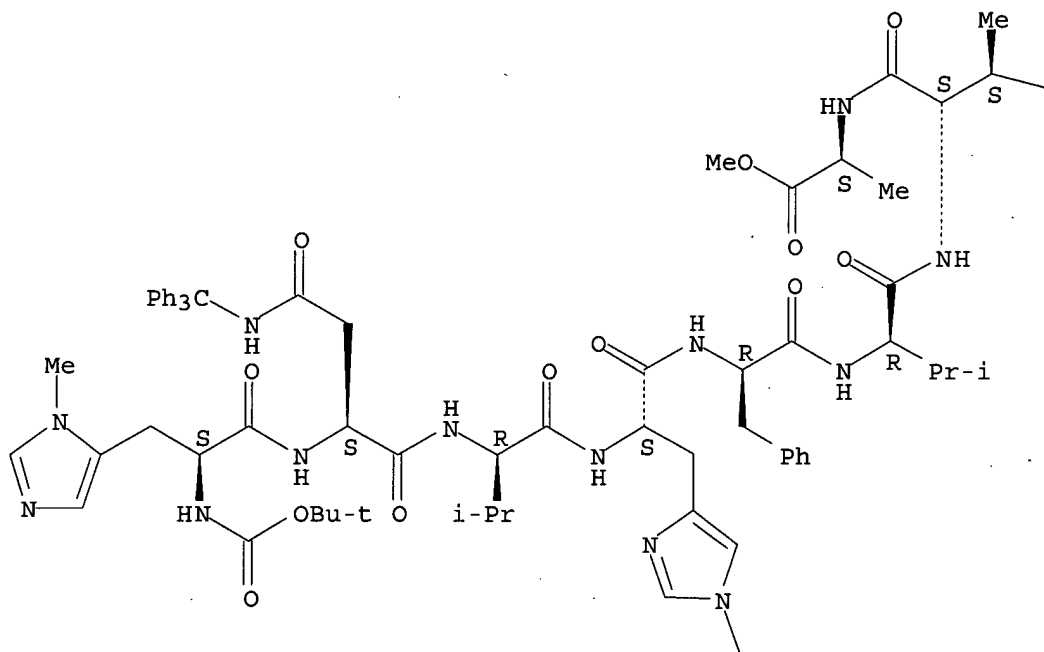
09567863

RN 357426-68-7 CAPLUS

CN L-Alanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-N-(triphenylmethyl)-L-asparaginyl-D-valyl-1-(triphenylmethyl)-L-histidyl-D-phenylalanyl-D-valyl-L-isoleucyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

Et

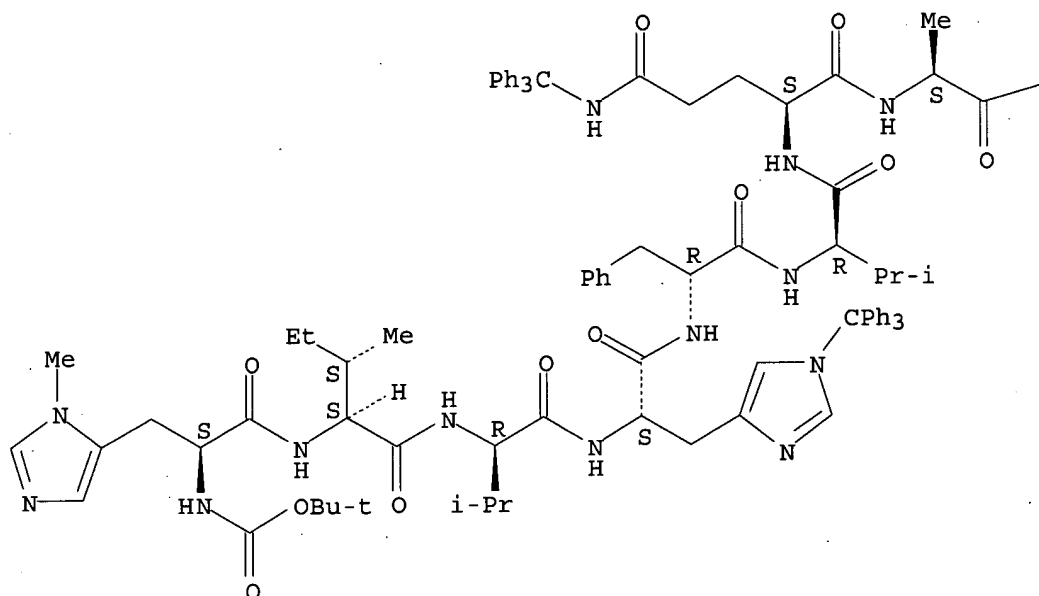
PAGE 2-A

CPh<sub>3</sub>

RN 357426-69-8 CAPLUS

CN L-Alanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-L-isoleucyl-D-valyl-1-(triphenylmethyl)-L-histidyl-D-phenylalanyl-D-valyl-N-(triphenylmethyl)-L-glutaminyl-, methyl ester (9CI) (CA INDEX NAME)

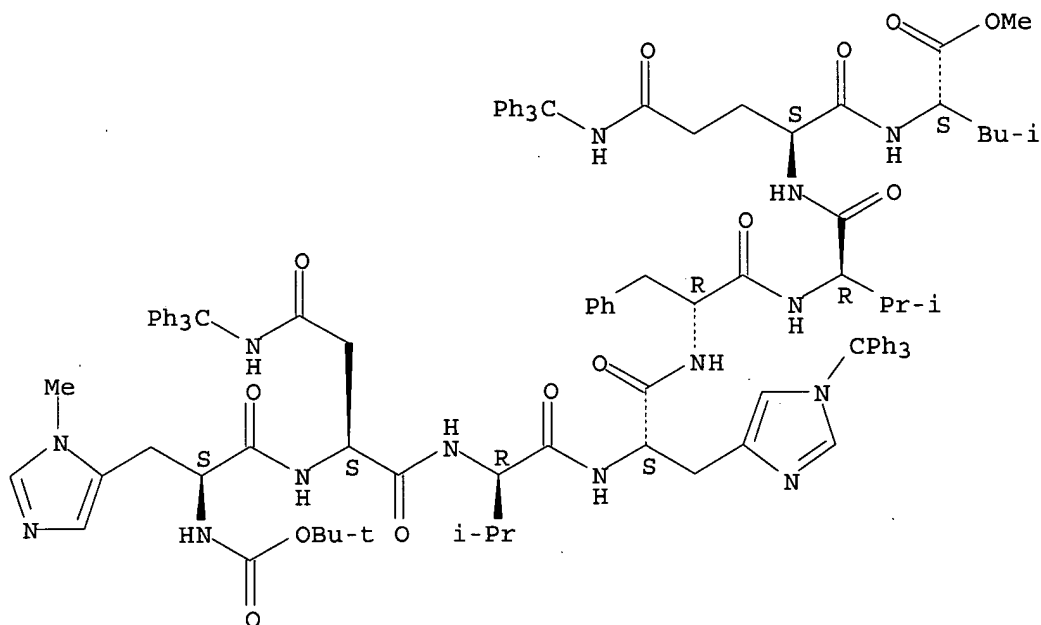
Absolute stereochemistry.



—OMe

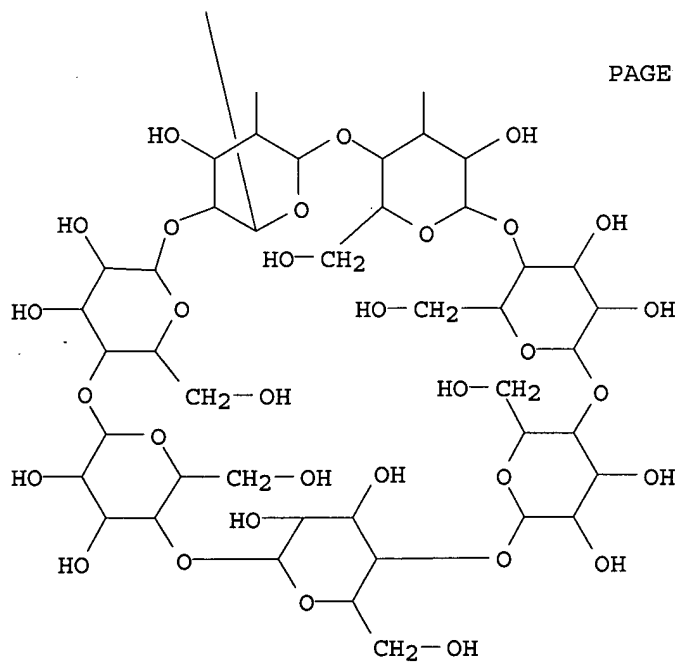
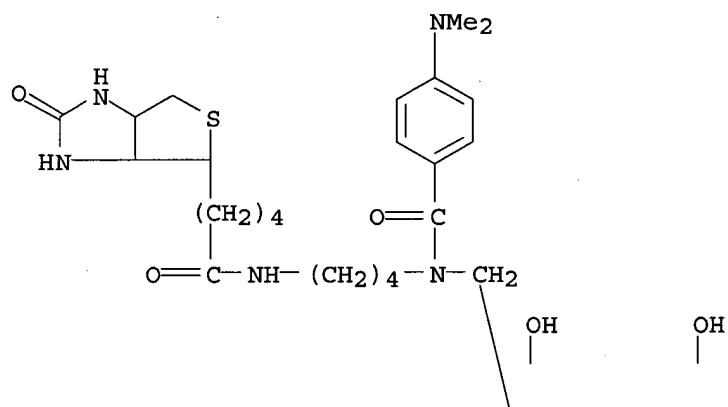
RN 357426-70-1 CAPLUS  
 CN L-Leucine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-N-(triphenylmethyl)-L-asparaginyl-D-valyl-1-(triphenylmethyl)-L-histidyl-D-phenylalanyl-D-valyl-N-(triphenylmethyl)-L-glutaminyl-, methyl ester (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1996:222956 CAPLUS  
DN 124:337019  
TI A fluorescent molecule-recognition **sensor** with a protein as an environmental factor  
AU Wang, Juan; Nakamura, Asao; Hamasaki, Keita; Ikeda, Hiroshi; Ikeda, Tsukasa; Ueno, Akihiko  
CS Faculty Bioscience Biotechnology, Tokyo Institute Technology, Yokohama, 226, Japan  
SO Chemistry Letters (1996), (4), 303-4  
CODEN: CMLTAG; ISSN: 0366-7022  
PB Nippon Kagakkai  
DT Journal  
LA English  
AB Modified cyclodextrin, which has p-N,N-dimethylaminobenzoyl and biotin units as **fluorophore** and protein-binding site, resp., exhibits an enhanced sensing ability for various org. compds. in aq. soln. in the presence of avidin.  
IT **176514-81-1**  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(modified cyclodextrin prepn. with conjugated **fluorophore** and protein-binding site and reaction with avidin)  
RN 176514-81-1 CAPLUS  
CN .beta.-Cyclodextrin, 6A-deoxy-6A-[[4-(dimethylamino)benzoyl][4-[[5-(hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl)-1-oxopentyl]amino]butyl]amino]-, [3aS-(3a.alpha.,4.beta.,6a.alpha.)]- (9CI)  
(CA INDEX NAME)



09567863

=>

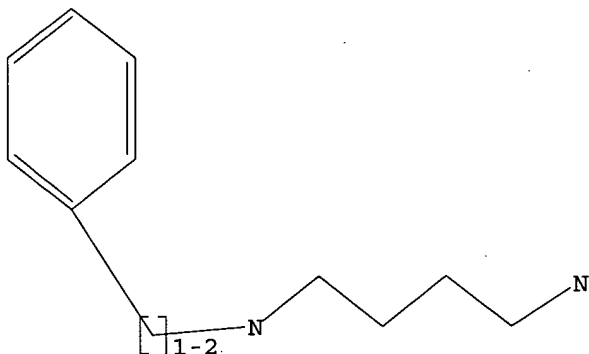
Uploading 10053274.str

L6 STRUCTURE UPLOADED

=> d l6

L6 HAS NO ANSWERS

L6 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l6 full

FULL SEARCH INITIATED 14:44:24 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 312305 TO ITERATE

100.0% PROCESSED 312305 ITERATIONS

44522 ANSWERS

SEARCH TIME: 00.00.06

L7 44522 SEA SSS FUL L6

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

148.15

333.58

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

0.00

-5.21

FILE 'CAPLUS' ENTERED AT 14:44:38 ON 04 SEP 2003

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

09567863

FILE COVERS 1907 - 4 Sep 2003 VOL 139 ISS 10  
FILE LAST UPDATED: 2 Sep 2003 (20030902/ED)

This file contains CAS Registry Numbers for easy and accurate  
substance identification.

=> s 17

L8 18069 L7

=> s 17 and fluoresc?

<-----User Break----->

SEARCH ENDED BY USER

=> s 18 and fluoresc

16 FLUORESC

L9 0 L8 AND FLUORESC

=> s 18 and fluoresc?

365887 FLUORESC?

L10 649 L8 AND FLUORESC?

=> s 110 and sensor

100838 SENSOR

L11 17 L10 AND SENSOR

=> dup rem l11

PROCESSING COMPLETED FOR L11

L12 17 DUP REM L11 (0 DUPLICATES REMOVED)

=> d 112 bib abs hitstr 1-17

L12 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:221926 CAPLUS

DN 138:251070

TI Device with chemical surface patterns

IN Textor, Marcus; Michel, Roger; Voeroes, Janos; Hubbell, Jeffrey A.; Lussi,  
Jost

PA Eidgenoessische Technische Hochschule Zuerich, Switz.

SO PCT Int. Appl., 69 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003023401	A1	20030320	WO 2001-CH548	20010912
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRAI WO 2001-CH548 20010912

AB The invention concerns a device with chem. surface patterns (defined  
surface areas of at least two different chem. compns.) with biochem. or

biol. relevance on substrates with prefabricated patterns of at least two different types of regions (.alpha., .beta.,...), whereas at least two different, consecutively applied mol. self-assembly systems (A, B...) are used in a way that at least one of the applied assembly systems (A or B or...) is specific to one type of the prefabricated patterns (.alpha. or .beta. or...). A silicon wafer was coated with TiO<sub>2</sub> followed by SiO<sub>2</sub> and a pattern of 5 X 5 squares of TiO<sub>2</sub> was etched through the SiO<sub>2</sub> layer. The patterned surface was dipped in aq. ammonium dodecyl phosphate for self-assembly of DDP on top of the TiO<sub>2</sub> areas, rendering these areas highly hydrophobic. The surface was dipped in an aq. soln. of poly(L-lysine)-g-poly(ethylene glycol) (PLL-g-PEG) to selectively adsorbed to the SiO<sub>2</sub> regions. Texas Red-streptavidin selectively adsorbed to the PLL-g-PEG coating.

IT 359878-44-7D, immobilized 502454-10-6D, immobilized  
502454-77-5D, immobilized

RL: BSU (Biological study, unclassified); DEV (Device component use); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)

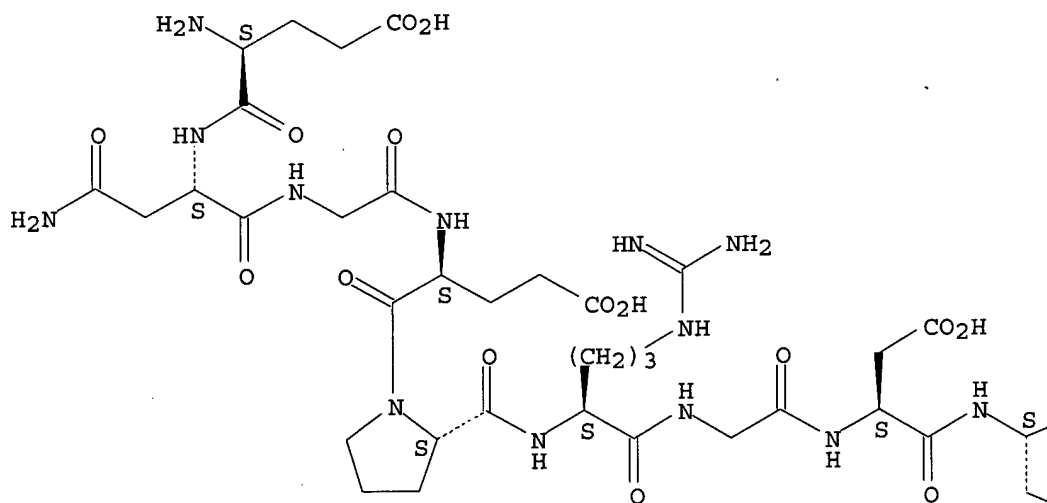
(in patterns in biomed. device; device with chem. surface patterns with biochems. on substrates with prefabricated patterns)

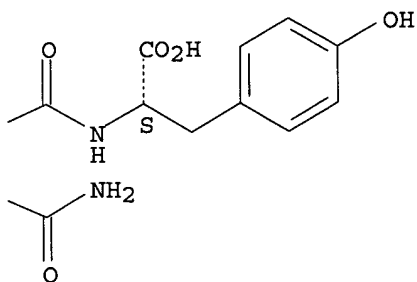
RN 359878-44-7 CAPLUS

CN L-Tyrosine, L-.alpha.-glutamyl-L-asparaginylglycyl-L-.alpha.-glutamyl-L-prolyl-L-arginylglycyl-L-.alpha.-aspartyl-L-asparaginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

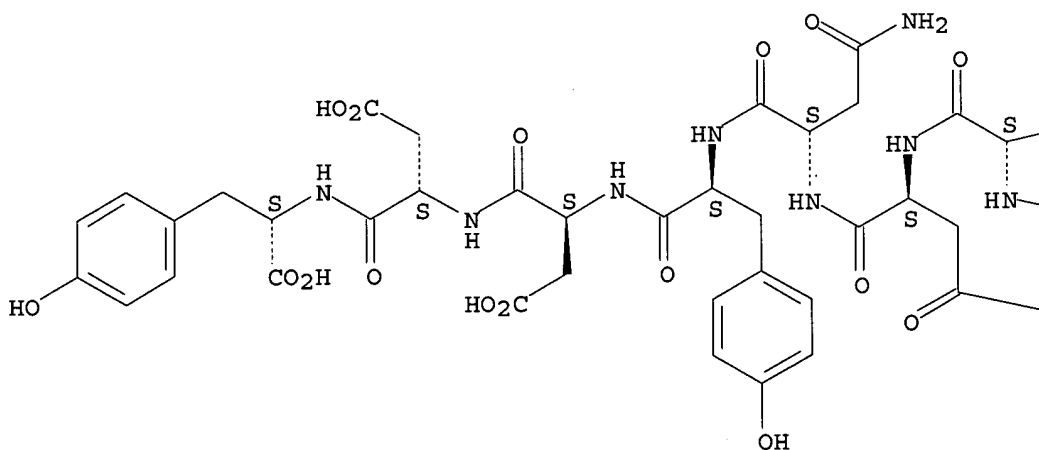


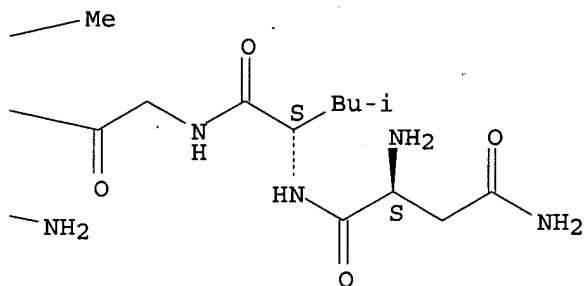


RN 502454-10-6 CAPLUS  
 CN L-Tyrosine, L-asparaginyl-L-leucylglycyl-L-alanyl-L-asparaginyl-L-asparaginyl-L-tyrosyl-L-.alpha.-aspartyl-L-.alpha.-aspartyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

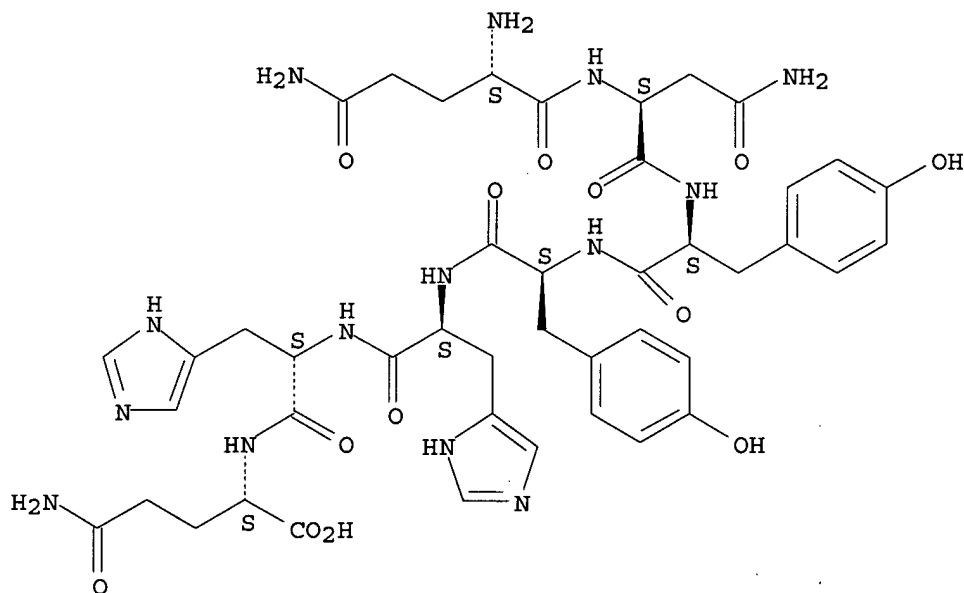




RN 502454-77-5 CAPLUS

CN L-Glutamine, L-glutaminy-L-asparaginy-L-tyrosyl-L-tyrosyl-L-histidyl-L-histidyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:69754 CAPLUS

DN 139:65615

TI A **fluorescent sensor** for 2,3-bisphosphoglycerate using a europium tetra-N-oxide bis-bipyridine complex for both binding and signaling purposes

AU Best, Michael D.; Anslyn, Eric V.

CS The University of Texas at Austin, Austin, TX, 78712-1167, USA

SO Chemistry--A European Journal (2003), 9(1), 51-57

CODEN: CEUJED; ISSN: 0947-6539

PB Wiley-VCH Verlag GmbH & Co. KGaA

DT Journal

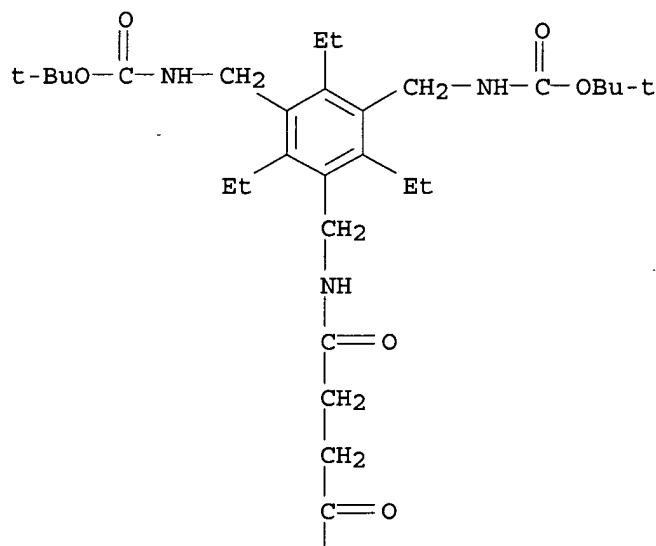
LA English

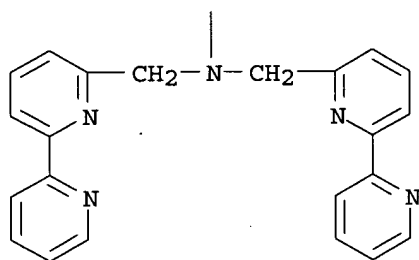
AB Host 1 was designed and synthesized as a **fluorescent sensor** for 2,3-bisphosphoglycerate (BPG, 3). The design features a tris-functionalized triethylbenzene core to preorganize binding groups. The three cationic moieties, a tetra-N-oxide bipyridine-europium complex and two ammonium groups, were included to complement the three anionic functionalities on the guest. Beyond acting as a binding site, the europium complex was used to signal binding of the guest through modification of the charge transfer emission. A 1:1 complex with BPG was detd. in 50% methanol/acetonitrile with a  $K_a$  of  $6.7 \times 10^5 \text{ mol}^{-1}$  by monitoring the redn. of the **fluorescence** signal upon guest addn. In the titrn. of related glycolytic intermediates lacking a second phosphate (4-6) into host 1, 2:1 host to guest binding was obsd. Similarly, control compd. 2, which lacks the ammonium groups, binds BPG and 4-6 in a 2:1 fashion. Also, phenylphosphate 7 binds to host 1 in a 1:1 stoichiometry with a  $K_a$  over three times less than 3.

IT **549507-67-7P 549507-68-8P 549507-70-2P**  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (**fluorescent sensor** for 2,3-bisphosphoglycerate using europium tetra-N-oxide bis-bipyridine complex for both binding and signaling purposes)

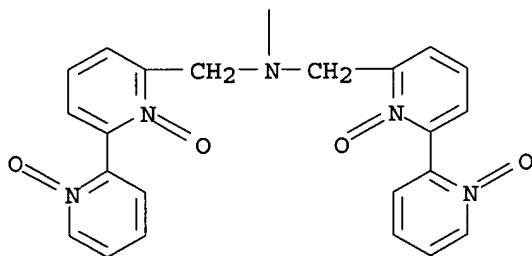
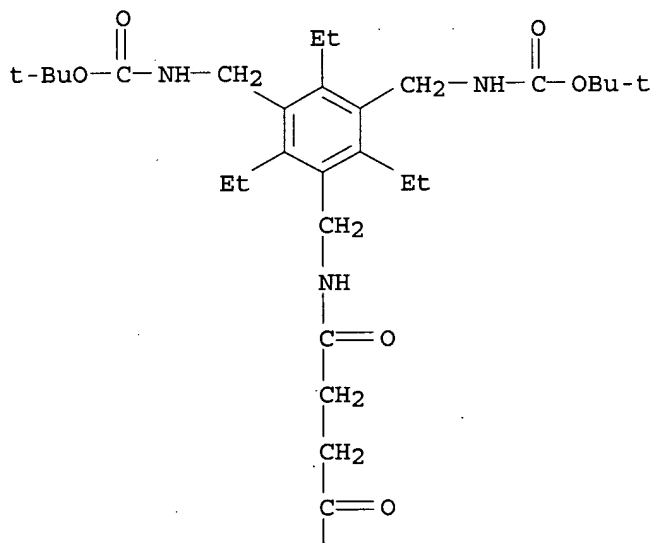
RN 549507-67-7 CAPLUS  
 CN Carbamic acid, [[5-[[[4-[bis([2,2'-bipyridin]-6-ylmethyl)amino]-1,4-dioxobutyl]amino]methyl]-2,4,6-triethyl-1,3-phenylene]bis(methylene)]bis-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A





RN 549507-68-8 CAPLUS  
 CN Carbamic acid, [[5-[[[4-[bis[(1,1'-dioxido[2,2'-bipyridin]-6-yl)methyl]amino]-1,4-dioxobutyl]amino]methyl]-2,4,6-triethyl-1,3-phenylene]bis(methylene)]bis-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



09567863

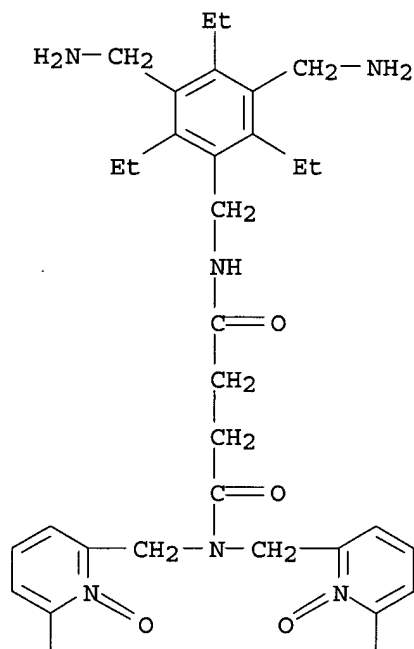
CN Butanediamide, N'-[[3,5-bis(aminomethyl)-2,4,6-triethylphenyl]methyl]-N,N-bis[(1,1'-dioxido[2,2'-bipyridin]-6-yl)methyl]-, diacetate (9CI) (CA INDEX NAME)

CM 1

CRN 549507-69-9

CMF C41 H48 N8 O6

PAGE 1-A



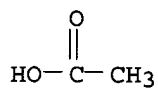
PAGE 2-A



CM 2

CRN 64-19-7

CMF C2 H4 O2



RE.CNT 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2002:814909 CAPLUS  
 DN 137:334929  
 TI Circularly permuted **fluorescent** protein indicators for measuring  
 the response of a **sensor** polypeptide to an environmental  
 parameter  
 IN Tsien, Roger Y.; Baird, Geoffrey  
 PA USA  
 SO U.S. Pat. Appl. Publ., 62 pp., Cont.-in-part of U.S. Ser. No. 316,920.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002157120	A1	20021024	US 2001-999745	20011023
	WO 2000071565	A2	20001130	WO 2000-US13684	20000517
	WO 2000071565	C2	20020704		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,				
	CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,				
	ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,				
	LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,				
	SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW,				
	AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,				
	DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,				
	CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRAI US 1999-316920 A2 19990521  
 WO 2000-US13684 W 20000517  
 US 1999-316919 A 19990521

AB The present invention provides an isolated nucleic acid sequence that encodes a **fluorescent** indicator or chimeric construct, the indicator having a **sensor** polypeptide that is responsive to a chem., biol., elec. or physiol. parameter, and a **fluorescent** protein moiety, wherein the **sensor** polypeptide is operatively inserted into the **fluorescent** protein moiety, and wherein the **fluorescence** of the **fluorescent** protein moiety is affected by the responsiveness of the **sensor** polypeptide. When a **sensor** polypeptide is inserted into a **fluorescent** protein such as an Aequorea-related **fluorescent** protein (e.g., Green **Fluorescent** Protein (GFP), Yellow **Fluorescent** Protein (YFP), Cyan **Fluorescent** Protein (CFP), or a deriv. or mutant thereof) to form a construct, interaction of the **sensor** polypeptide with a biol., chem., elec. or physiol. parameter, for example, results in a change in **fluorescence** of the **fluorescent** protein. Such constructs are useful in measuring interactions of a **sensor** polypeptides with environmental stimuli in vitro or in vivo or in measuring particular characteristics of a cell (e.g., redox potential, intracellular ion concn.). These constructs rely on the responsiveness of a **sensor** polypeptide inserted within a GFP-**sensor**-related protein itself to influence the actual **fluorescence** of the fluorophore and not the interaction of tandem **fluorescent** mols. Also provided are circularly permuted **fluorescent** polypeptides and polynucleotides encoding the circularly permuted **fluorescent** polypeptides. In addn., methods of using the **fluorescent** indicators and the circularly permuted **fluorescent** polypeptides are provided.

IT 60703-95-9 99268-57-2 309752-21-4

RL: PRP (Properties)

(unclaimed sequence; circularly permuted **fluorescent** protein indicators for measuring the response of a **sensor** polypeptide

09567863

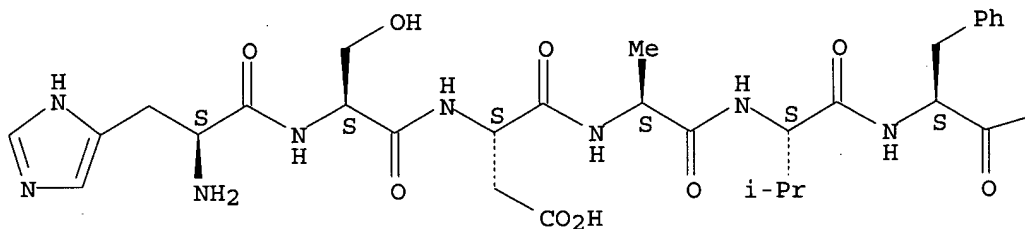
to an environmental parameter)

RN 60703-95-9 CAPLUS

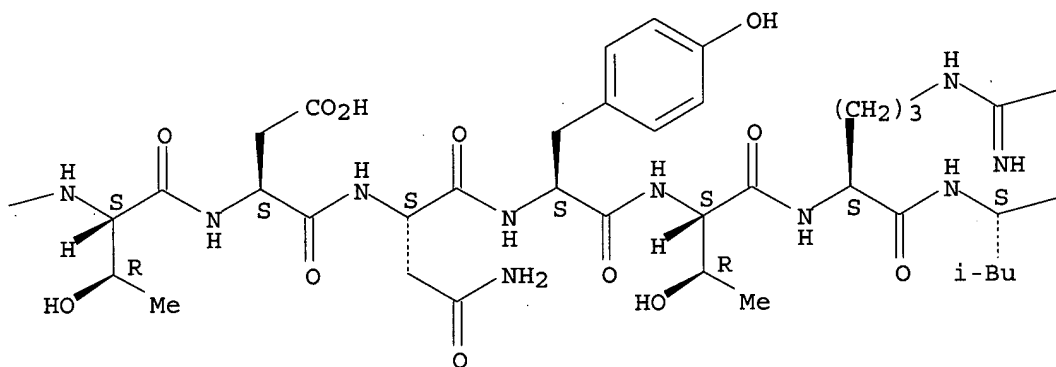
CN Vasoactive intestinal octacosapeptide (swine), 28-L-asparagine- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

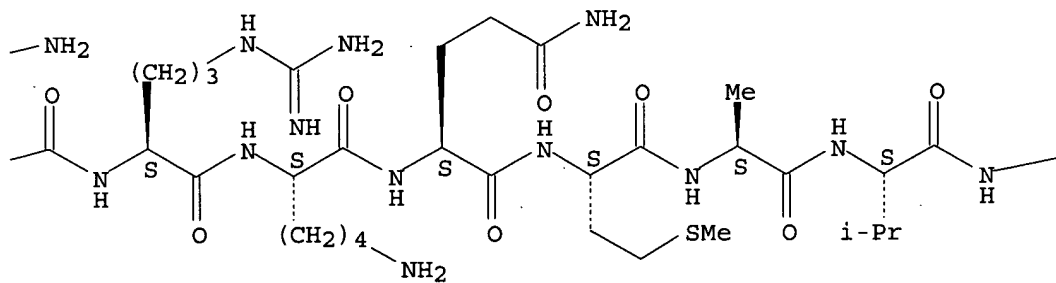
PAGE 1-A

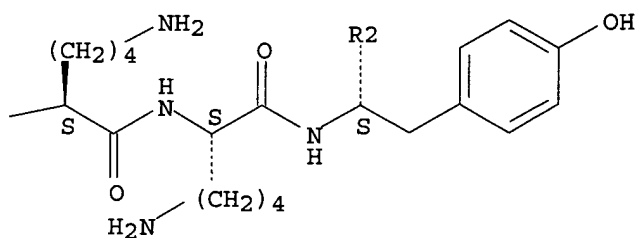


PAGE 1-B

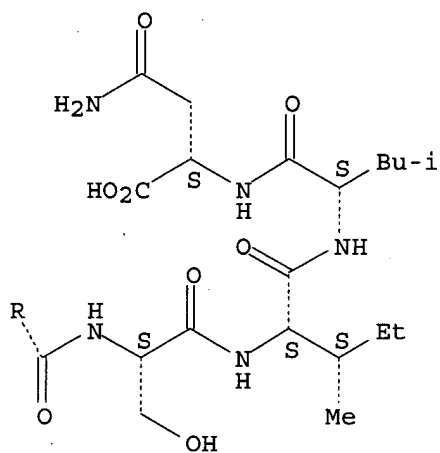


PAGE 1-C

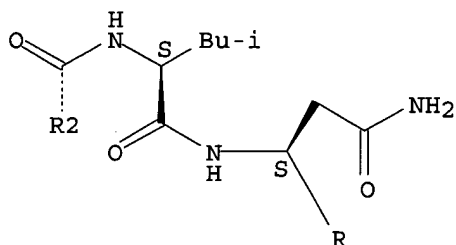




PAGE 2-A



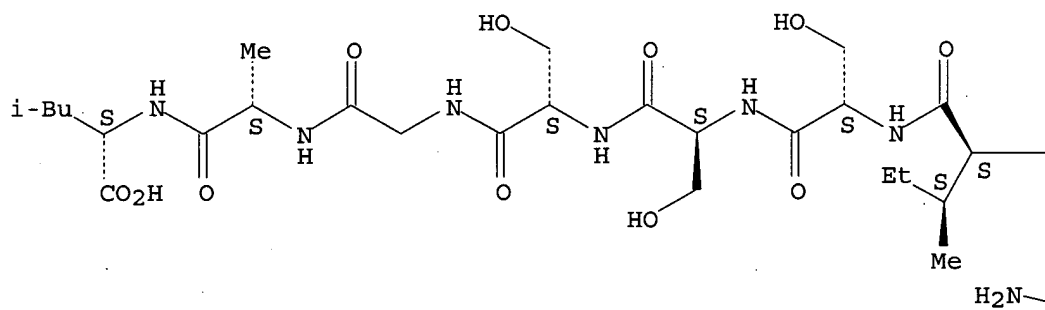
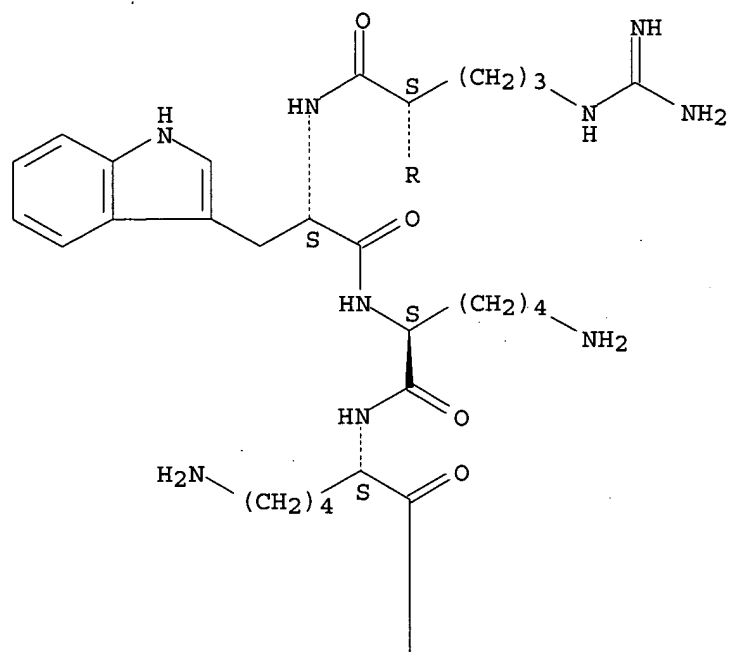
PAGE 3-A

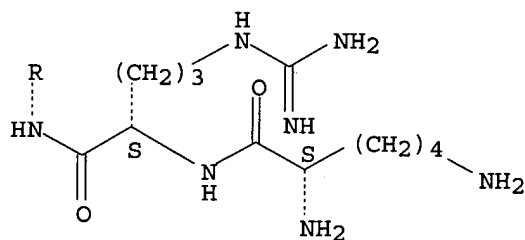
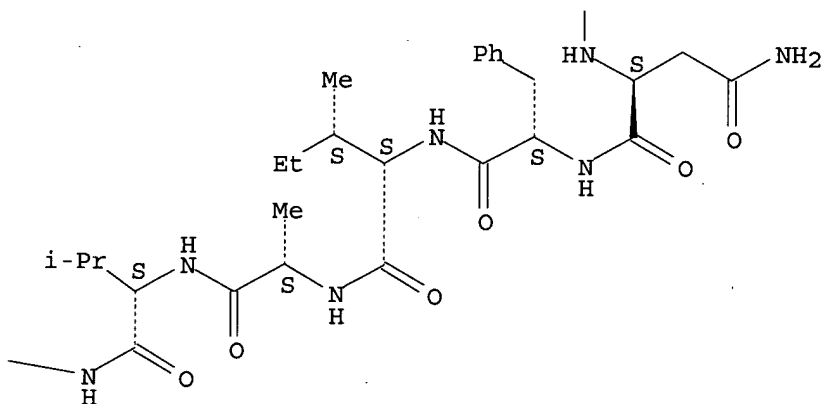
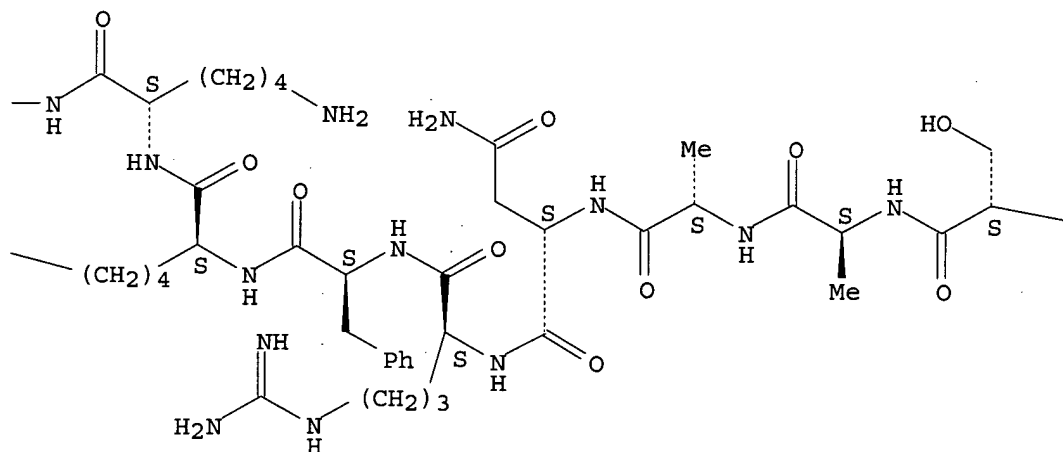


RN 99268-57-2 CAPLUS

CN L-Leucine, L-lysyl-L-arginyl-L-arginyl-L-tryptophyl-L-lysyl-L-lysyl-L-asparaginyl-L-phenylalanyl-L-isoleucyl-L-alanyl-L-valyl-L-seryl-L-alanyl-L-alanyl-L-asparaginyl-L-arginyl-L-phenylalanyl-L-lysyl-L-lysyl-L-isoleucyl-L-seryl-L-seryl-L-serylglycyl-L-alanyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.





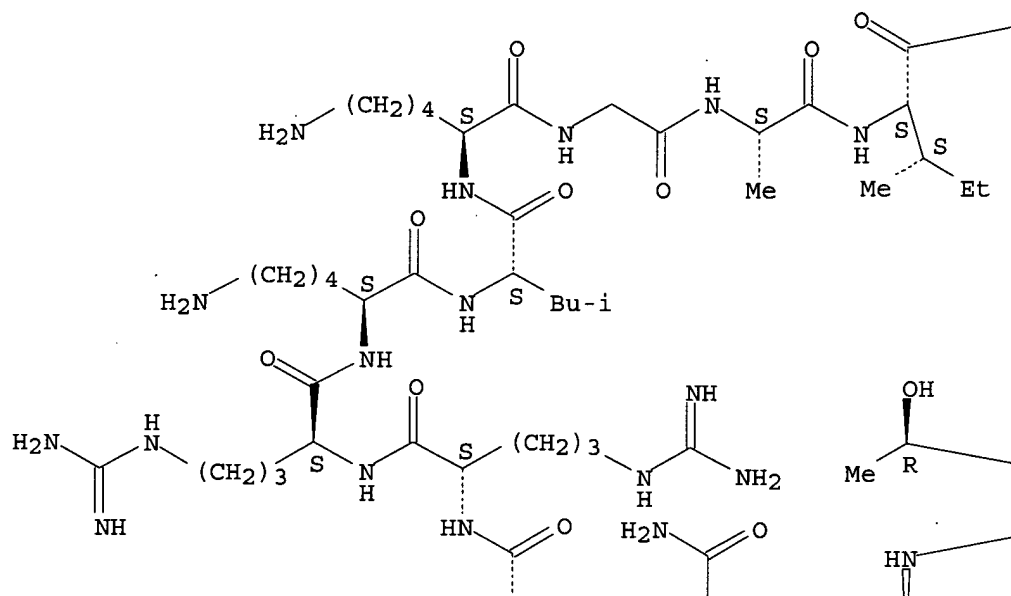
RN 309752-21-4 CAPLUS

CN L-Serine, L-alanyl-L-arginyl-L-arginyl-L-lysyl-L-leucyl-L-lysylglycyl-L-alanyl-L-isoleucyl-L-leucyl-L-threonyl-L-threonyl-L-methionyl-L-leucyl-L-alanyl-L-threonyl-L-arginyl-L-asparaginy-L-phenylalanyl- (9CI) (CA INDEX NAME)

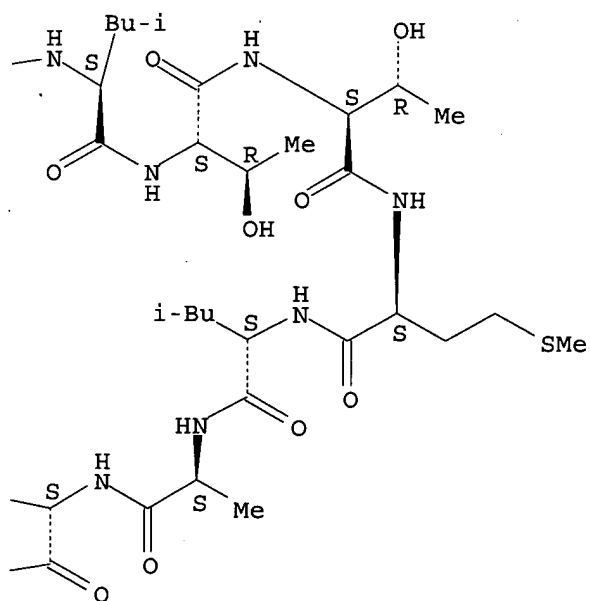
09567863

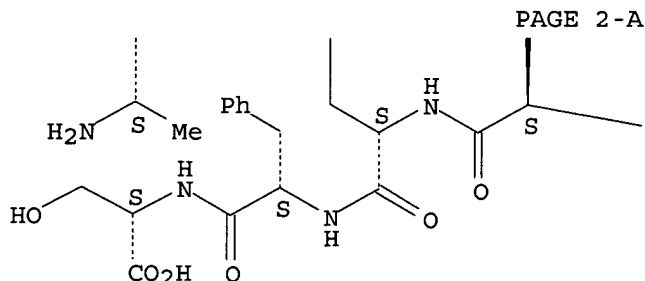
Absolute stereochemistry.

PAGE 1-A

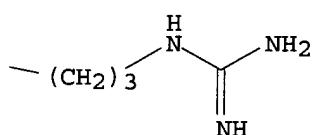


PAGE 1-B





PAGE 2-B



L12 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:960671 CAPLUS

DN 138:35759

TI **Fluorescent** protein sensors containing phosphorylation sites introduced by N-terminal mutagenesis

IN Cubitt, Andrew B.

PA Aurora Biosciences Corporation, USA

SO U.S., 49 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6495664	B1	20021217	US 1998-129192	19980724
PRAI	US 1998-129192		19980724		

AB The present invention includes a **fluorescent** compd. that can detect an activity, such as an enzymic activity, and exhibits quenching. The **fluorescent** compd. is a **fluorescent** protein, such as an Aequorea-related green **fluorescent** protein.. The green **fluorescent** protein (GFP) of Aequorea victoria is modified to include a substrate site for an enzymic activity such as a kinase activity, a phosphatase activity, a protease activity, and a glycosylase activity. Thus, relative **fluorescence** of phosphorylated vs. non-phosphorylated GFP is enhanced by modifying the N-terminal region (e.g., residues MSKGEELEF to MGRRRASII) to contain a phosphorylation site responsive to protein kinase A, or other protein kinase enzymes,. Addnl. amino acid substitutions are engineered (S65A, K79R, E90N, N149K, V163A, I167T, and optionally A87T and E90A) to further improved **fluorescence** yield. The **fluorescent** compd. of the present invention can be used to detect such enzymic activities in samples, such as biol. samples, including cells. The present invention also includes nucleic acids that encode the **fluorescent** compds. of the present inventions, and cells that include such nucleic acids or **fluorescent** compds.

IT 119798-33-3 478315-70-7

RL: PRP (Properties)

(unclaimed sequence; **fluorescent** protein sensors contg.

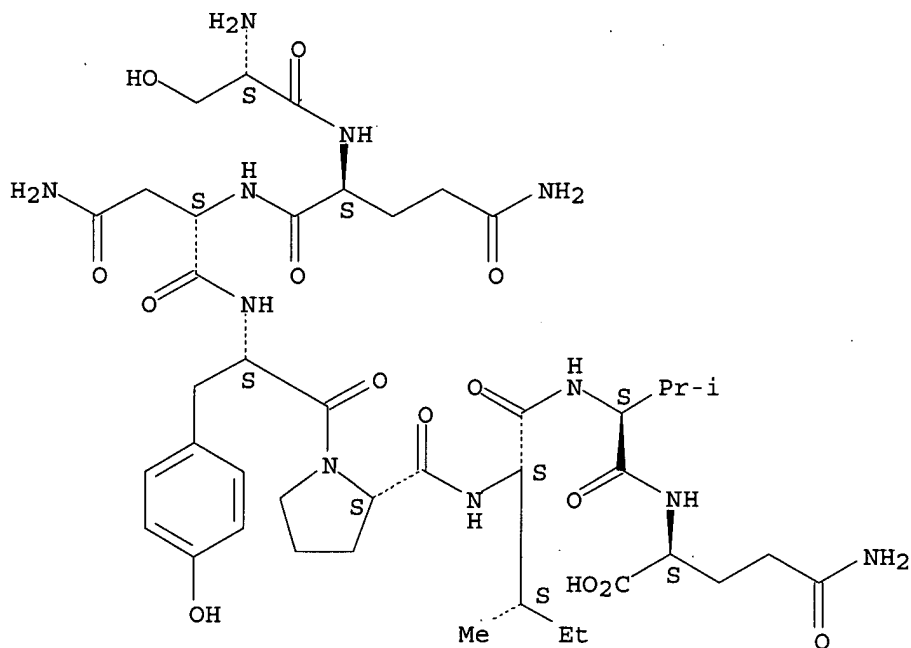
09567863

phosphorylation sites introduced by N-terminal mutagenesis)

RN 119798-33-3 CAPLUS

CN L-Glutamine, L-seryl-L-glutaminyl-L-asparaginyl-L-tyrosyl-L-prolyl-L-isoleucyl-L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

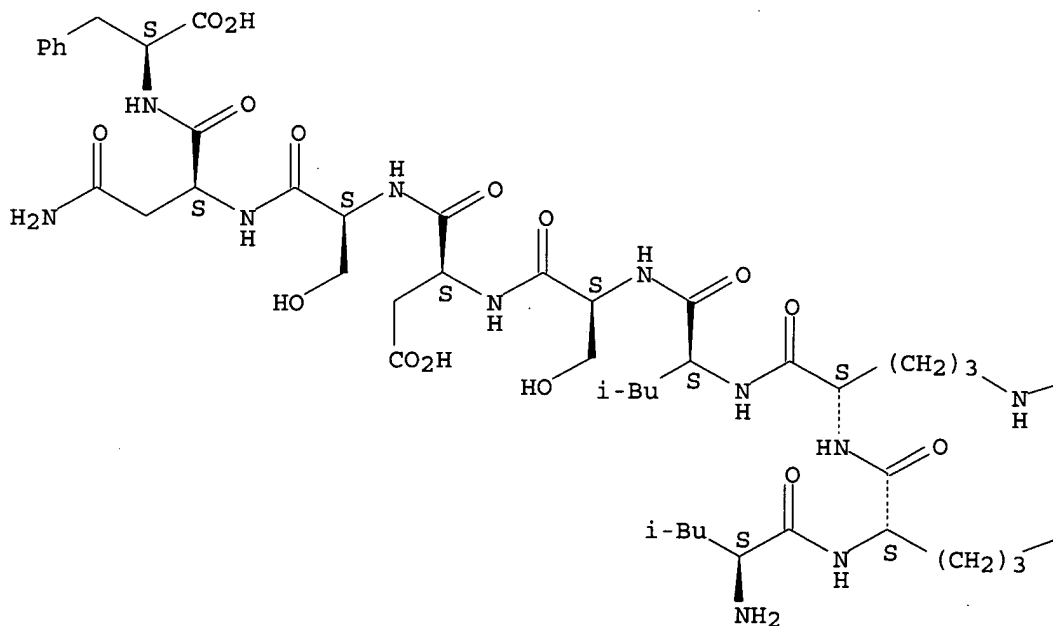


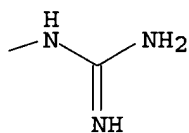
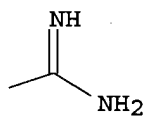
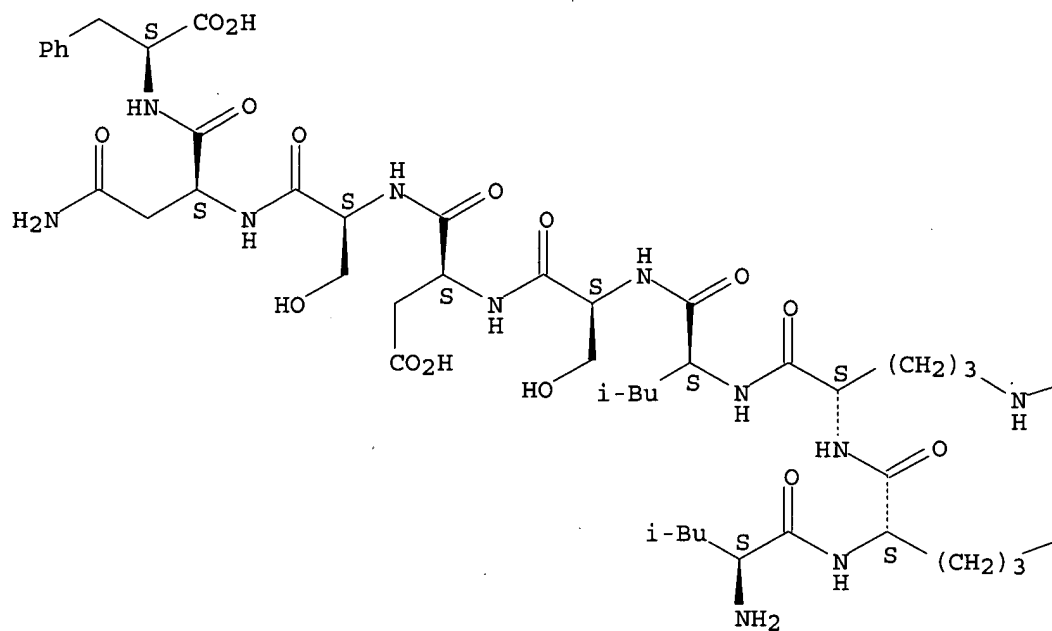
RN 478315-70-7 CAPLUS

CN L-Phenylalanine, L-leucyl-L-arginyl-L-arginyl-L-leucyl-L-seryl-L-.alpha.-aspartyl-L-seryl-L-asparaginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A





RE.CNT 126 THERE ARE 126 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:173488 CAPLUS

DN 137:134121

TI Modular **fluorescence** sensors for saccharides

AU Arimori, Susumu; Bell, Michael L.; Oh, Chan S.; Frimat, Karine A.; James,

09567863

Tony D.  
CS Department of Chemistry, University of Bath, Bath, BA2 7AY, UK  
SO Journal of the Chemical Society, Perkin Transactions 1 (2002), (6),  
803-808  
CODEN: JCSPCE; ISSN: 1472-7781  
PB Royal Society of Chemistry  
DT Journal  
LA English  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Modular photoinduced electron transfer (PET) sensors bearing two phenylboronic acid groups, a pyrene group and alkylene linkers, from trimethylene to octamethylene, were prepd. and evaluated. The diboronic acid systems with tetramethylene I (n = 4) pentamethylene I (n = 5) and hexamethylene I (n = 6) linkers display the greatest enhancement in binding relative to monoboronic acid II with D-glucose. The diboronic acid system with the hexamethylene I (n = 6) linker is particularly D-glucose selective and sensitive. While the diboronic acid systems with the longer heptamethylene I (n = 7) and octamethylene I (n = 8) linkers display the greatest enhancement in binding relative to monoboronic acid II with D-galactose. All saccharide titrns. were performed in methanolic aq. soln.

IT 29867-04-7P, N-Benzyl-1,4-diaminobutane 444147-73-3P,  
N-Benzyl-N'-pyren-1-ylmethyl-1,4-diaminobutane  
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(in prepn. of sensing mols. contg. phenylboronic acid and pyrene and alkylene linkers for modular **fluorescence** sensors for monosaccharides)

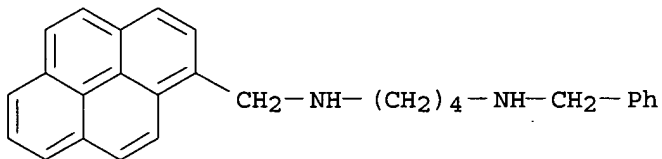
RN 29867-04-7 CAPLUS

CN 1,4-Butanediamine, N-(phenylmethyl)- (9CI) (CA INDEX NAME)

$\text{H}_2\text{N}-(\text{CH}_2)_4-\text{NH}-\text{CH}_2-\text{Ph}$

RN 444147-73-3 CAPLUS

CN 1,4-Butanediamine, N-(phenylmethyl)-N'-(1-pyrenylmethyl)- (9CI) (CA INDEX NAME)



IT 444147-66-4P

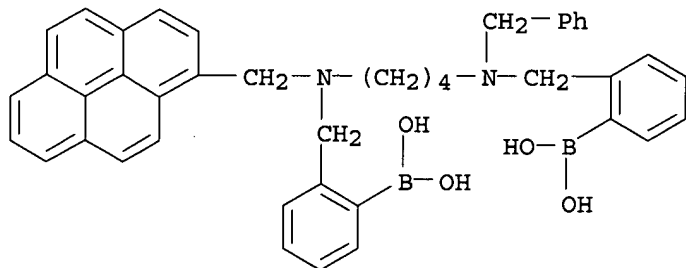
RL: ARU (Analytical role, unclassified); DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)

(modular **fluorescence** sensors for saccharides using sensing mols. contg. phenylboronic acid and pyrene and alkylene linkers)

RN 444147-66-4 CAPLUS

CN Boronic acid, [2-[[[4-[[2-(boronophenyl)methyl](phenylmethyl)amino]butyl]]

1-pyrenylmethyl)amino]methyl]phenyl]- (9CI) (CA INDEX NAME)



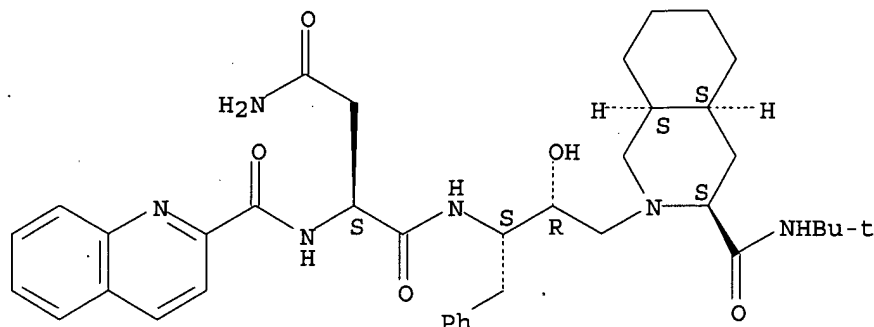
RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L12 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2001:783427 CAPLUS  
DN 136:67516  
TI Effects of the membrane dipole potential on the interaction of saquinavir with phospholipid membranes and plasma membrane receptors of Caco-2 cells  
AU Asawakarn, Tanong; Cladera, Josep; O'Shea, Paul  
CS School of Biomedical Sciences, University of Nottingham, Nottingham, NG 7 2UH, UK  
SO Journal of Biological Chemistry (2001), 276(42), 38457-38463  
CODEN: JBCHA3; ISSN: 0021-9258  
PB American Society for Biochemistry and Molecular Biology  
DT Journal  
LA English  
AB The combined use of the membrane surface potential **fluorescent sensor fluorescein** phosphatidylethanolamine (FPE) and the membrane dipole potential **fluorescent sensor** di-8-ANEPPS to characterize the interaction of mols. with model and cellular membranes and to assess the influence of the dipole potential on the interaction is reported. The study of the human immunodeficiency virus protease inhibitor saquinavir with Caco-2 cells and phospholipid membranes reveals that the compd. interacts with the lipidic bilayer of model membranes with a simple hyperbolic binding profile but with Caco-2 cells in a cooperative way involving membrane receptors. Addnl. studies indicated that colchicine acts as a competitor ligand to saquinavir and suggests, in agreement with other reports, that the identity of the saquinavir "receptor" could be P-glycoprotein or the multiple drug resistance-assocd. protein. The modification of the magnitude of the membrane dipole potential using compds. such as cholesterol, phloretin, and 6-ketocholestanol influences the binding capacity of saquinavir. Furthermore, removal of cholesterol from the cell membrane using methyl-.beta.-cyclodextrin significantly decreases the binding capacity of saquinavir. Because removal of cholesterol from the cell membrane has been reported to disrupt membrane domains known as "rafts," our observations imply that the membrane dipole potential plays an important role as a modulator of mol.-membrane interactions in these membrane structures. Such a role is suggested to contribute to the altered behavior of receptor-mediated signaling systems in membrane rafts.
- IT 127779-20-8, Saquinavir  
RL: BCP (Biochemical process); BIOL (Biological study); PROC (Process)  
(effects of membrane dipole potential on interaction of saquinavir with phospholipid membranes and plasma membrane receptors of Caco-2 cells)
- RN 127779-20-8 CAPLUS  
CN Butanediamide, N1-[(1S,2R)-3-[(3S,4aS,8aS)-3-[[1,1-dimethylethyl)amino]carbonyl]octahydro-2(1H)-isoquinolinyl]-2-hydroxy-1-

09567863

(phenylmethyl)propyl]-2-[(2-quinolinylcarbonyl)amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2001:440067 CAPLUS  
DN 135:211264  
TI Selection of Enantioselective Acyl Transfer Catalysts from a Pooled Peptide Library through a **Fluorescence**-Based Activity Assay: An Approach to Kinetic Resolution of Secondary Alcohols of Broad Structural Scope  
AU Copeland, Gregory T.; Miller, Scott J.  
CS Department of Chemistry Merkert Chemistry Center, Boston College, Chestnut Hill, MA, 02467-3860, USA  
SO Journal of the American Chemical Society (2001), 123(27), 6496-6502  
CODEN: JACSAT; ISSN: 0002-7863  
PB American Chemical Society  
DT Journal  
LA English  
OS CASREACT 135:211264  
AB An assay employing a **fluorescently** labeled split and pool peptide library has been applied to the discovery of a new class of octapeptide catalysts for the kinetic resoln. of secondary alcs. A highly diverse library of peptide-based catalysts was synthesized on solid-phase synthesis beads such that each individual bead was co-functionalized with (i) a uniform loading of a pH-sensitive fluorophore and (ii) a unique peptide-based catalyst. The library was then screened for activity in acylation reactions employing (.+-.)-sec-phenylethanol as the substrate and acetic anhydride as the acylation agent. From the most active catalysts, a lead peptide Boc-Pmh-L-Asn(trt)-D-Val-L-His(trt)-D-Phe-D-Val-D-Val-L-Ala-OMe [Boc = Me<sub>3</sub>CO<sub>2</sub>C, Pmh = .pi.-(Me)-L-His, Trt = trityl] was identified that provides a selectivity-factor (k<sub>rel</sub>) of 8.2 upon resynthesis and evaluation under homogeneous conditions. A "directed" second-generation split and pool peptide library was synthesized such that the new peptide sequences in the library were biased toward the lead structure. Random samples of the second generation library were screened in single bead assays that revealed several new peptide-based catalysts that afford improved selectivities in kinetic resolns. Peptide catalyst Boc-Pmh-L-Thr(tBu)-D-Val-L-His(trt)-D-Phe-D-Val-L-Thr(tBu)-L-Ile-OMe proves effective for the kinetic resoln. of sec-phenylethanol (k<sub>rel</sub> = 20), as well as eight other secondary alcs. of a broad substrate scope (k<sub>rel</sub> = 4 to >50).  
IT 357426-62-1P 357426-64-3P 357426-66-5P  
357426-68-7P 357426-69-8P 357426-70-1P

09567863

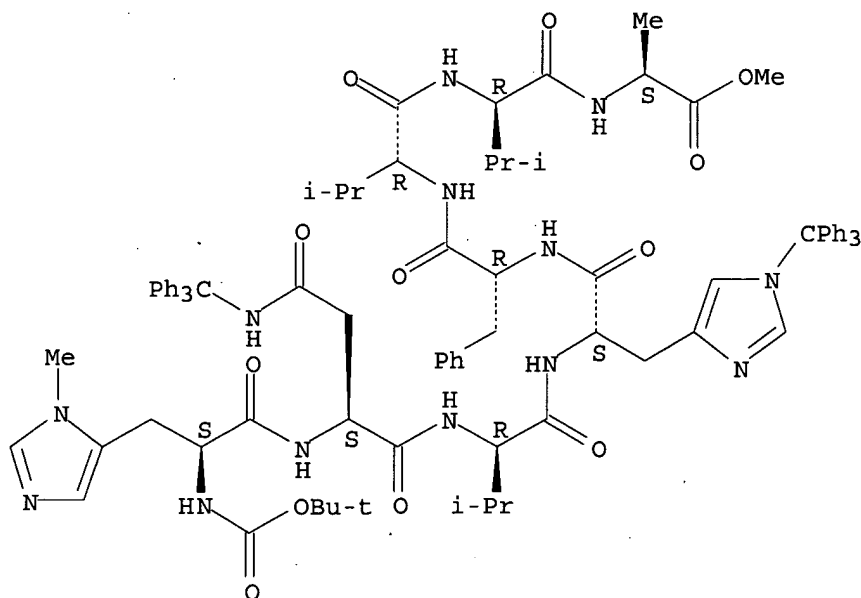
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);  
USES (Uses)

(prepn. of octapeptide catalysts for kinetic resoln. of secondary  
alcs.)

RN 357426-62-1 CAPLUS

CN L-Alanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-N-(  
(triphenylmethyl)-L-asparaginyl-D-valyl-1-(triphenylmethyl)-L-histidyl-D-  
phenylalanyl-D-valyl-D-valyl-, methyl ester (9CI) (CA INDEX NAME)

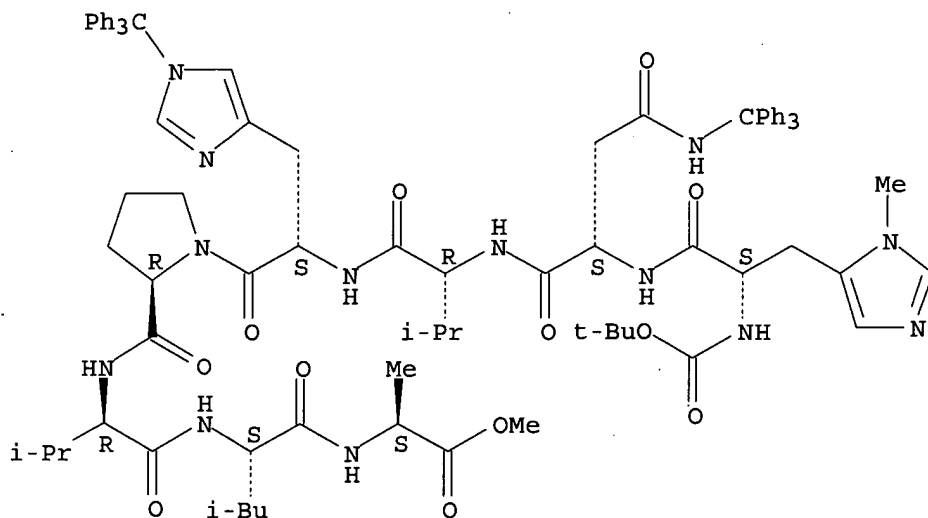
Absolute stereochemistry.



RN 357426-64-3 CAPLUS

CN L-Alanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-N-(  
(triphenylmethyl)-L-asparaginyl-D-valyl-1-(triphenylmethyl)-L-histidyl-D-  
prolyl-D-valyl-L-leucyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



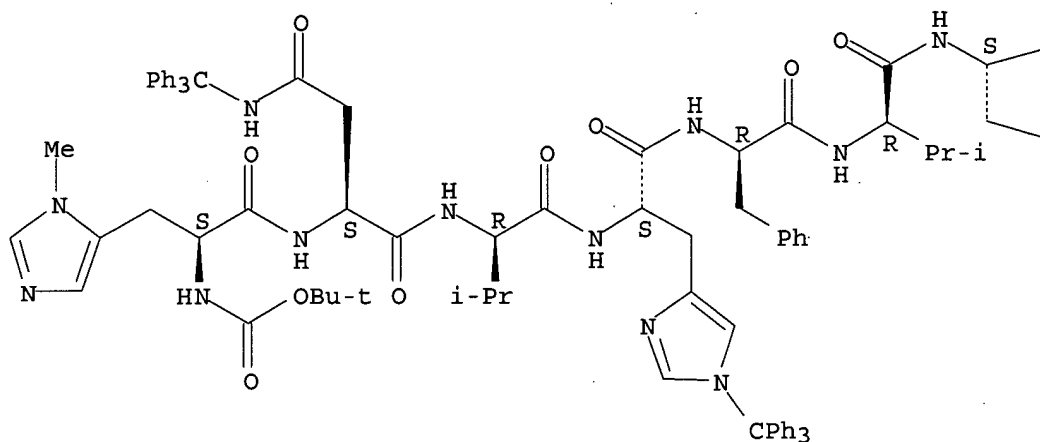
RN 357426-66-5 CAPLUS

09567863

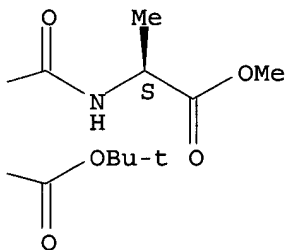
CN L-Alanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-N-(triphenylmethyl)-L-asparaginy-D-valyl-1-(triphenylmethyl)-L-histidyl-D-phenylalanyl-D-valyl-L-.alpha.-aspartyl-, 7-(1,1-dimethylethyl) 8-methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



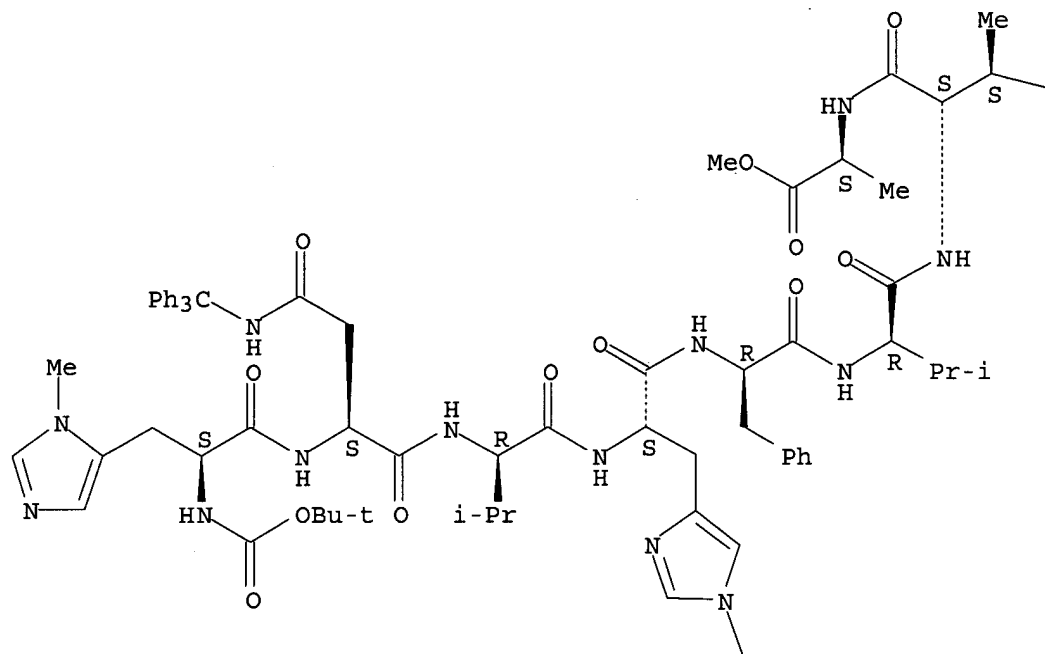
PAGE 1-B



RN 357426-68-7 CAPLUS

CN L-Alanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-N-(triphenylmethyl)-L-asparaginy-D-valyl-1-(triphenylmethyl)-L-histidyl-D-phenylalanyl-D-valyl-L-isoleucyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



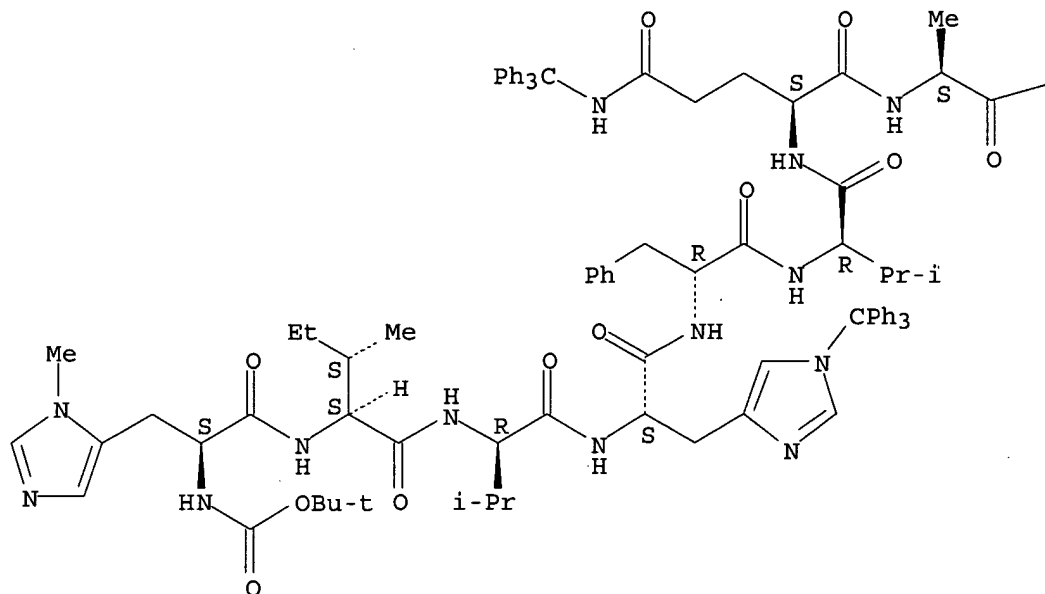
Et

CPh<sub>3</sub>

RN 357426-69-8 CAPLUS

CN L-Alanine, N-[(1,1-dimethylethoxy) carbonyl]-3-methyl-L-histidyl-L-  
 isoleucyl-D-valyl-1-(triphenylmethyl)-L-histidyl-D-phenylalanyl-D-valyl-N-  
 (triphenylmethyl)-L-glutamyl-, methyl ester (9CI) (CA INDEX NAME)

· Absolute stereochemistry.

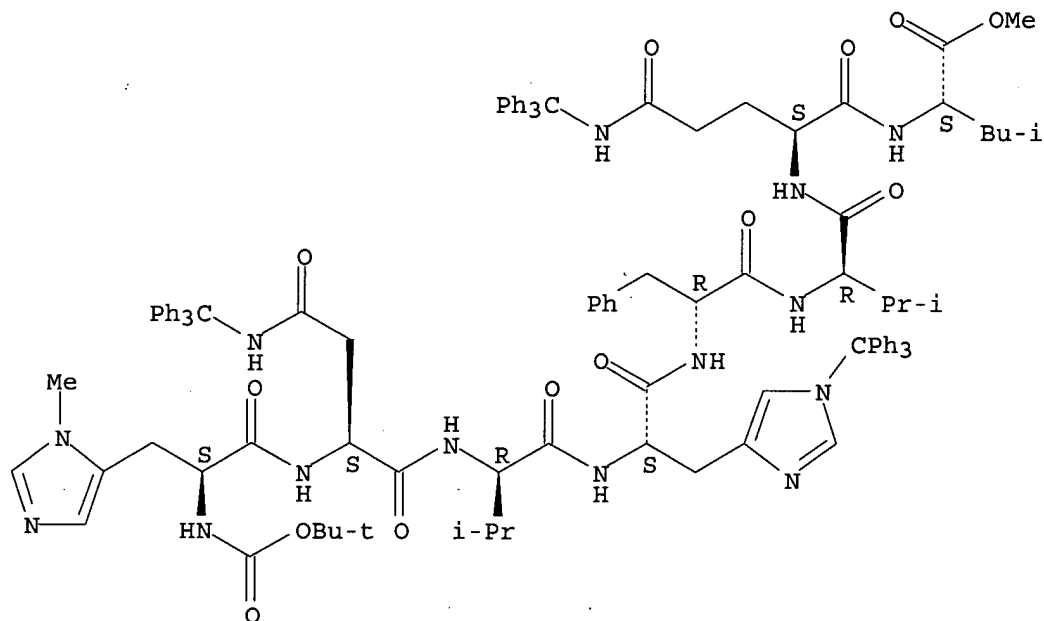


—OMe

RN 357426-70-1 CAPLUS

CN L-Leucine, N-[(1,1-dimethylethoxy) carbonyl]-3-methyl-L-histidyl-N-(triphenylmethyl)-L-asparaginyl-D-valyl-1-(triphenylmethyl)-L-histidyl-D-phenylalanyl-D-valyl-N-(triphenylmethyl)-L-glutaminyl-, methyl ester (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2001:500147 CAPLUS  
DN 135:241967  
TI **Fluorescence**-Based Screening of Asymmetric Acylation Catalysts  
through Parallel Enantiomer Analysis. Identification of a Catalyst for  
Tertiary Alcohol Resolution  
AU Jarvo, Elizabeth R.; Evans, Catherine A.; Copeland, Gregory T.; Miller,  
Scott J.  
CS Department of Chemistry Merkert Chemistry Center, Boston College, Chestnut  
Hill, MA, 02467-3860, USA  
SO Journal of Organic Chemistry (2001), 66(16), 5522-5527  
CODEN: JOCEAH; ISSN: 0022-3263  
PB American Chemical Society  
DT Journal  
LA English  
OS CASREACT 135:241967  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB A technique for high-throughput screening of kinetic resoln. catalysts was developed that relies on carrying out simultaneous kinetic resolns. in a multiwell plate format wherein each well contains a unique catalyst and a small amt. of a pH-activated **fluorescent sensor**. By conducting expts. such that each catalyst is evaluated in parallel in the presence of each isolated enantiomer, an indication of catalyst activity is obtained on a per enantiomer basis. Catalysts that were highly active for one enantiomer but modestly active for another were then reevaluated in conventional kinetic resolns. From these screens, a highly selective (krel = 46) pentapeptide I was obtained for a model secondary alc. In addn., peptide II was found to afford excellent selectivities (krel > 20) for a no. of alc. substrates, e.g. acetamidopropanols III (R = H, Me, O2N)

and IV, in the traditionally challenging tertiary class.

IT 360076-65-9P 360076-84-2P 360076-89-7P  
 360076-91-1P 360076-92-2P 360076-94-4P  
 360076-98-8P 360077-01-6P 360077-05-0P  
 360077-10-7P 360077-13-0P 360077-18-5P  
 360077-26-5P 360077-30-1P 360077-38-9P  
 360077-39-0P 360077-40-3P 360077-44-7P  
 360077-45-8P 360077-48-1P

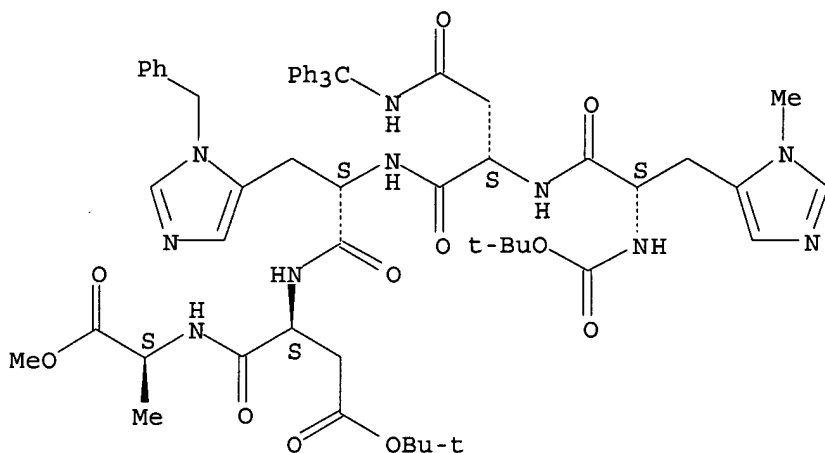
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);  
 USES (Uses)

(fluorescence-based, parallel-enantiomer anal. of asym.  
 peptidyl acylation catalysts for kinetic resolu. of tertiary alcs.)

RN 360076-65-9 CAPLUS

CN L-Alanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-N-(triphenylmethyl)-L-asparaginyl-3-(phenylmethyl)-L-histidyl-L-.alpha.-aspartyl-, 4-(1,1-dimethylethyl) 5-methyl ester (9CI) (CA INDEX NAME)

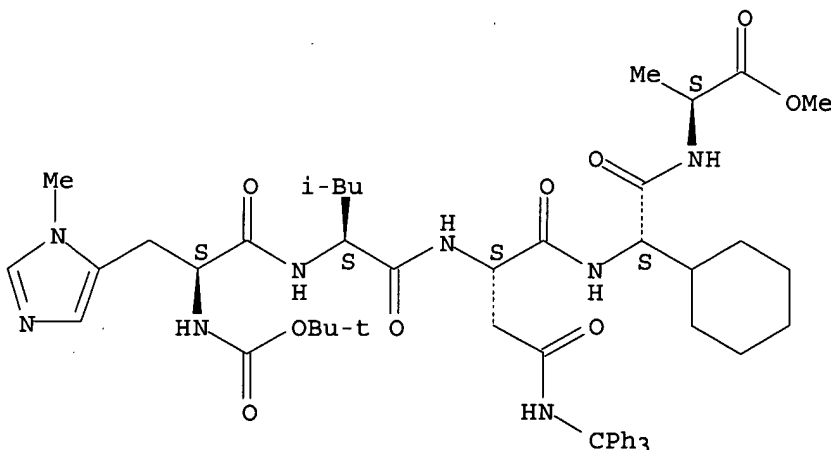
Absolute stereochemistry.



RN 360076-84-2 CAPLUS

CN L-Alanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-L-leucyl-N-(triphenylmethyl)-L-asparaginyl-(2S)-2-cyclohexylglycyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

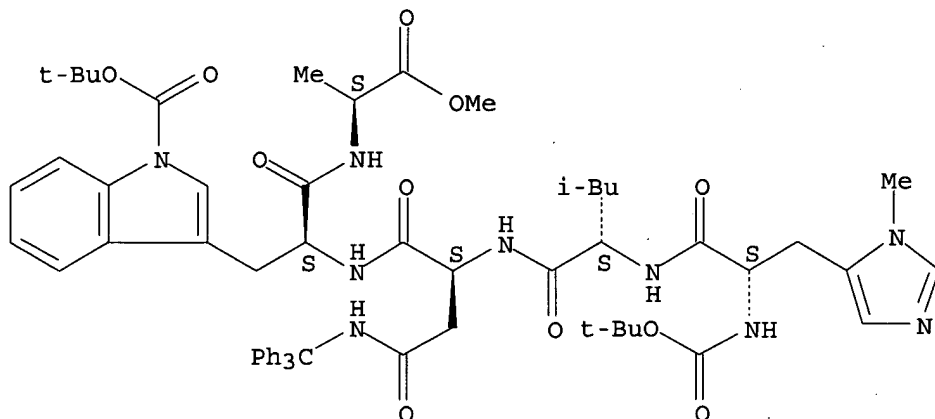


09567863

RN 360076-89-7 CAPLUS

CN L-Alanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-L-leucyl-N-(triphenylmethyl)-L-asparaginyl-1-[(1,1-dimethylethoxy)carbonyl]-L-tryptophyl-, methyl ester (9CI) (CA INDEX NAME)

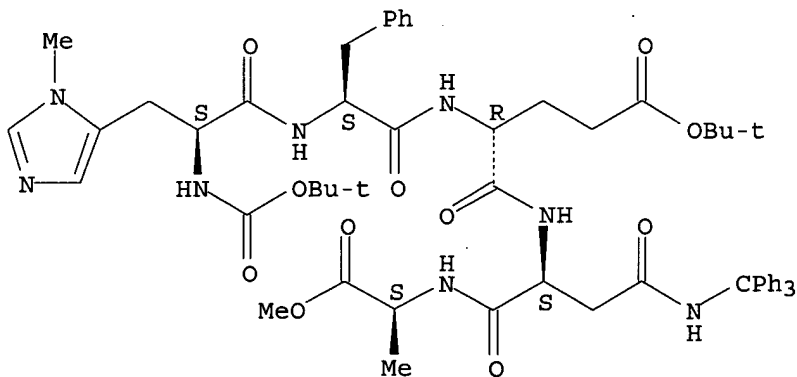
Absolute stereochemistry.



RN 360076-91-1 CAPLUS

CN L-Alanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-L-phenylalanyl-D-.alpha.-glutamyl-N-(triphenylmethyl)-L-asparaginyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

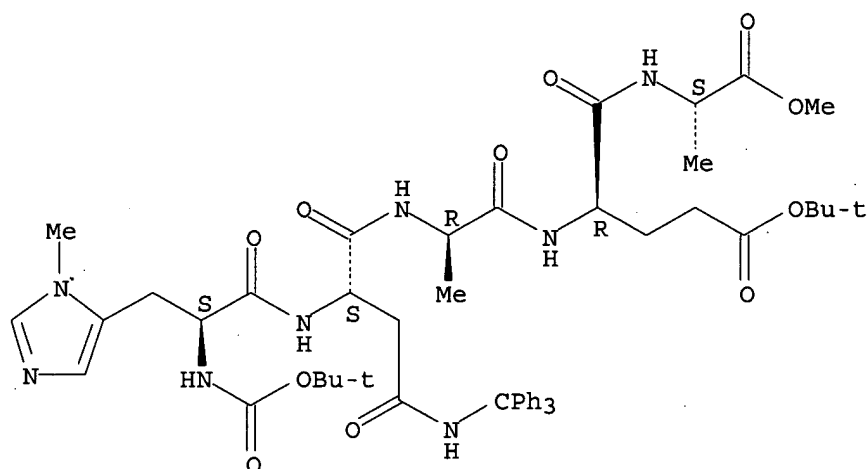


RN 360076-92-2 CAPLUS

CN L-Alanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-N-(triphenylmethyl)-L-asparaginyl-D-alanyl-D-.alpha.-glutamyl-, 4-(1,1-dimethylethyl) 5-methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

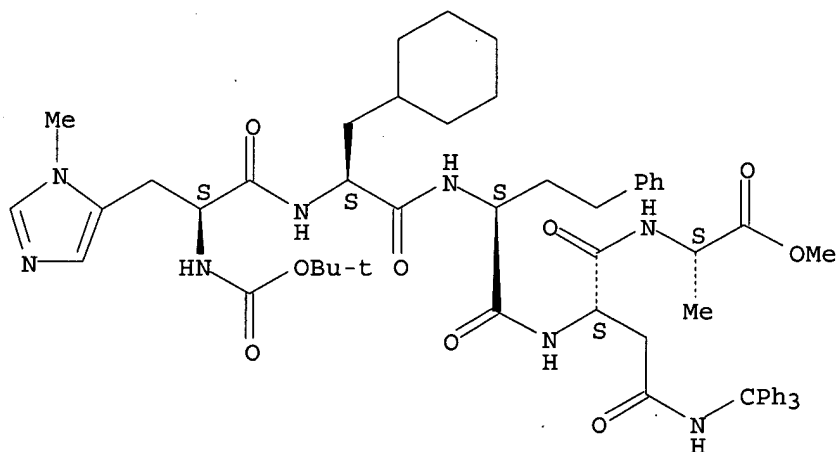
09567863



RN 360076-94-4 CAPLUS

CN L-Alanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-3-cyclohexyl-L-alanyl-(.alpha.S)-.alpha.-aminobenzenebutanoyl-N-(triphenylmethyl)-L-asparaginyl-, methyl ester (9CI) (CA INDEX NAME).

Absolute stereochemistry.

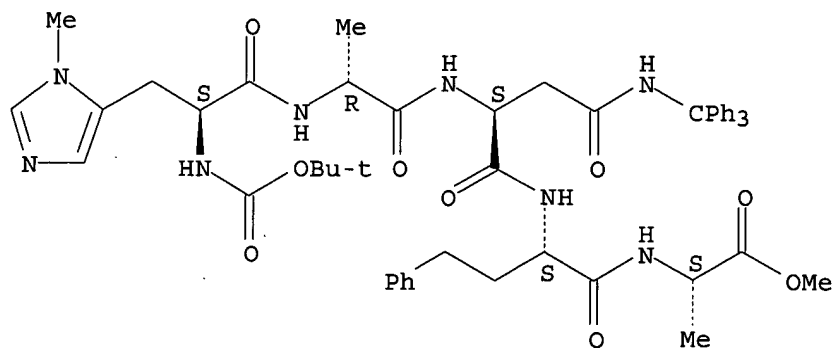


RN 360076-98-8 CAPLUS

CN L-Alanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-D-alanyl-N-(triphenylmethyl)-L-asparaginyl-(.alpha.S)-.alpha.-aminobenzenebutanoyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

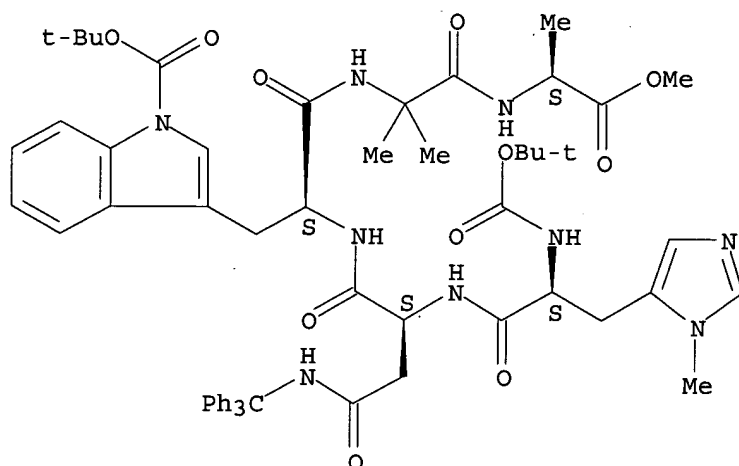
09567863



RN 360077-01-6 CAPLUS

CN L-Alanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-N-(triphenylmethyl)-L-asparaginyl-1-[(1,1-dimethylethoxy)carbonyl]-L-tryptophyl-2-methylalanyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

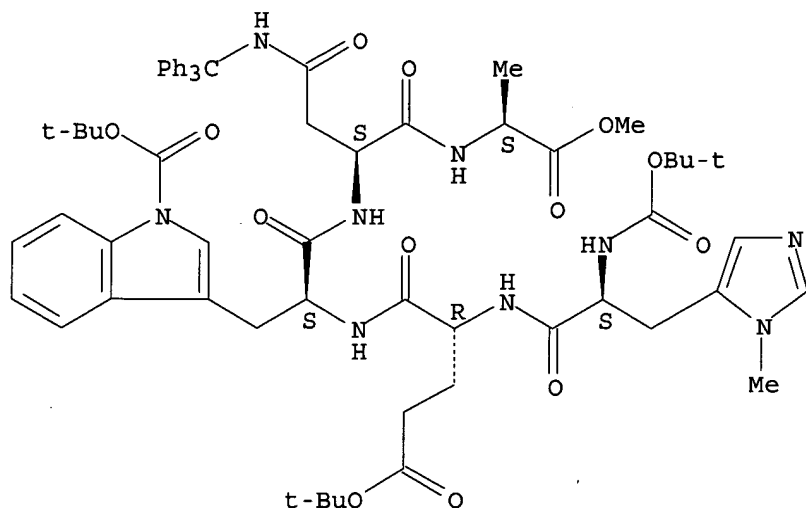


RN 360077-05-0 CAPLUS

CN L-Alanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-D-.alpha.-glutamyl-1-[(1,1-dimethylethoxy)carbonyl]-L-tryptophyl-N-(triphenylmethyl)-L-asparaginyl-, 2-(1,1-dimethylethyl) 5-methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

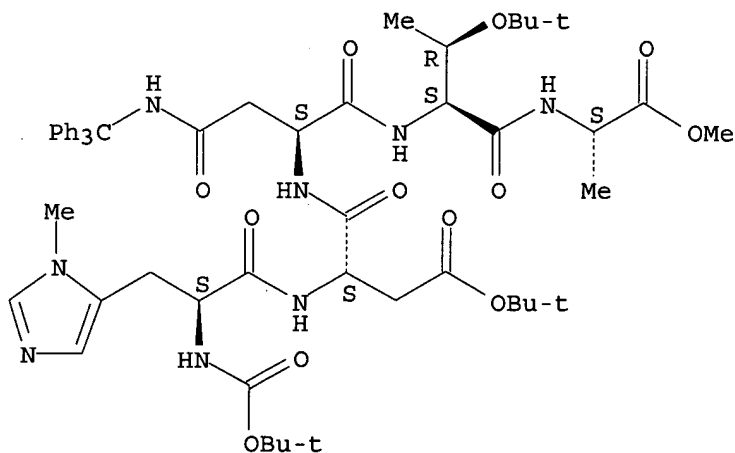
09567863



RN 360077-10-7 CAPLUS

CN L-Alanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-L-.alpha.-aspartyl-N-(triphenylmethyl)-L-asparaginyl-O-(1,1-dimethylethyl)-L-threonyl-, 2-(1,1-dimethylethyl) 5-methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

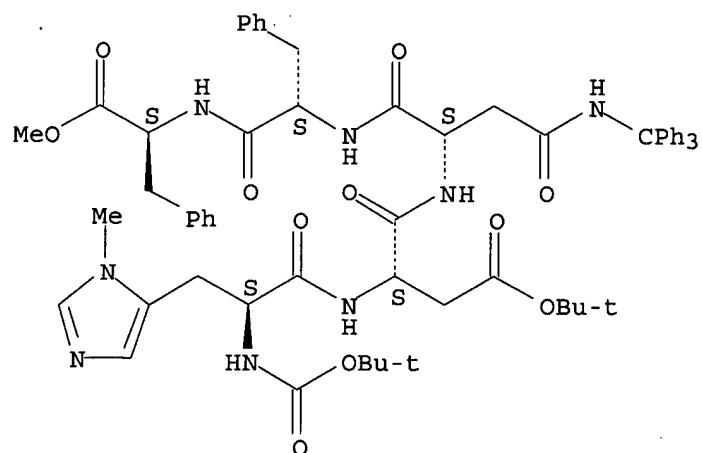


RN 360077-13-0 CAPLUS

CN L-Phenylalanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-L-.alpha.-aspartyl-N-(triphenylmethyl)-L-asparaginyl-L-phenylalanyl-, 2-(1,1-dimethylethyl) 5-methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

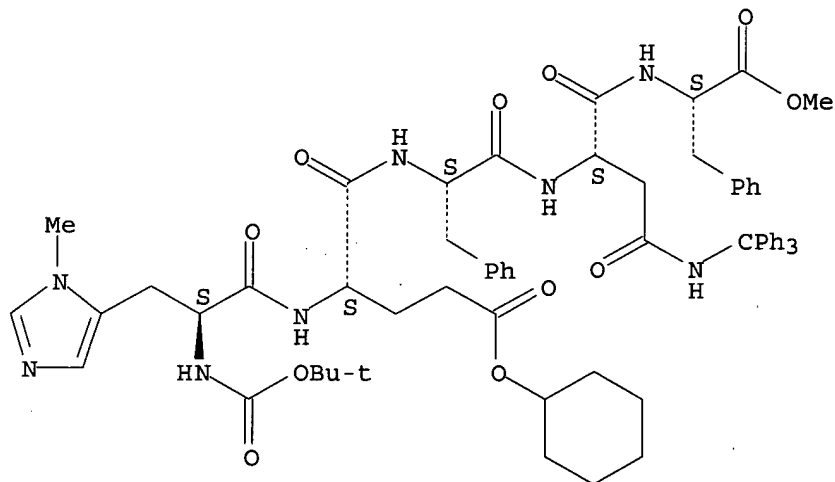
09567863



RN 360077-18-5 CAPLUS

CN L-Phenylalanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-L-.alpha.-glutamyl-L-phenylalanyl-N-(triphenylmethyl)-L-asparaginyl-, 2-cyclohexyl 5-methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

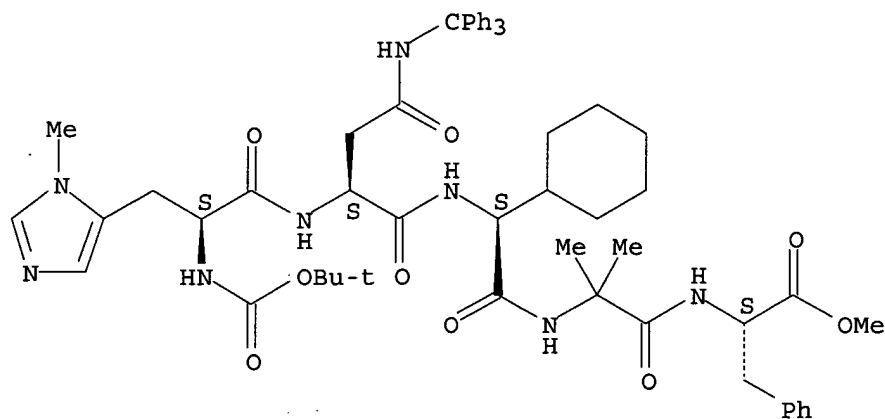


RN 360077-26-5 CAPLUS

CN L-Phenylalanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-N-(triphenylmethyl)-L-asparaginyl-(2S)-2-cyclohexylglycyl-2-methylalanyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

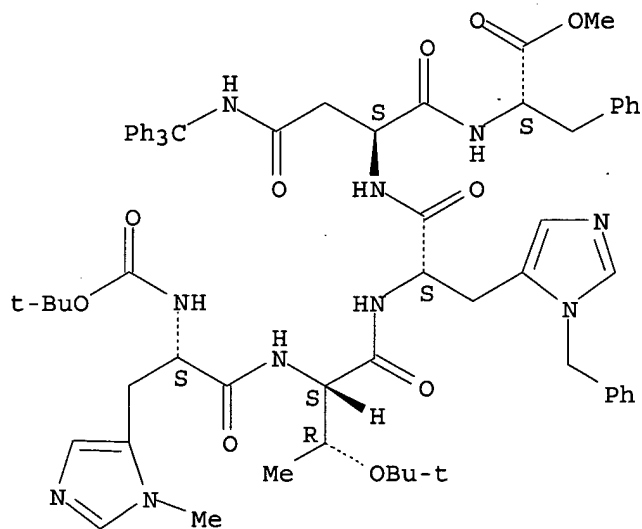
09567863



RN 360077-30-1 CAPLUS

CN L-Phenylalanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-O-(1,1-dimethylethyl)-L-threonyl-3-(phenylmethyl)-L-histidyl-N-(triphenylmethyl)-L-asparaginyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

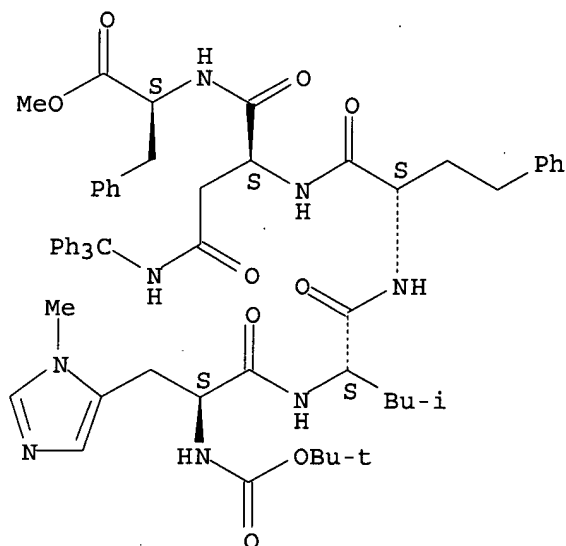


RN 360077-38-9 CAPLUS

CN L-Phenylalanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-L-leucyl-(.alpha.S)-.alpha.-aminobenzenebutanoyl-N-(triphenylmethyl)-L-asparaginyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

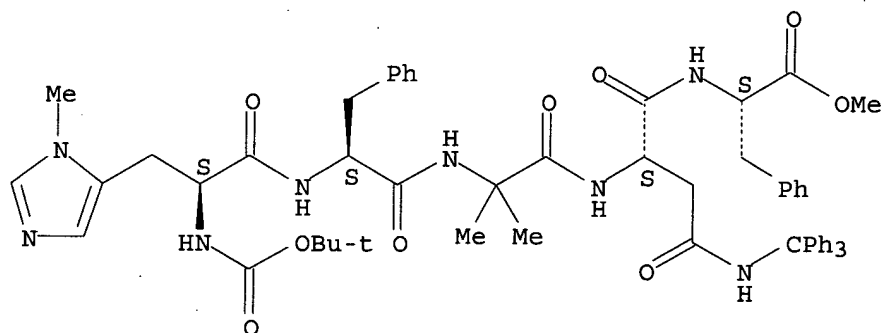
09567863



RN 360077-39-0 CAPLUS

CN L-Phenylalanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-L-phenylalanyl-2-methylalanyl-N-(triphenylmethyl)-L-asparaginyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

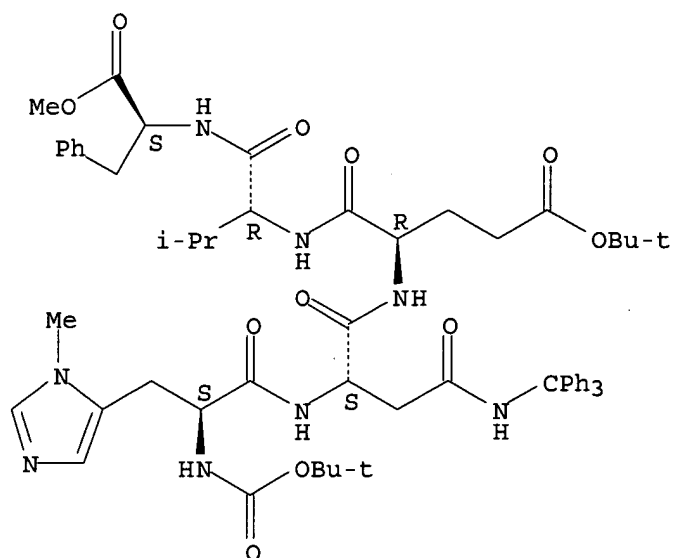


RN 360077-40-3 CAPLUS

CN L-Phenylalanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-N-(triphenylmethyl)-L-asparaginyl-D-.alpha.-glutamyl-D-valyl-, 3-(1,1-dimethylethyl) 5-methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

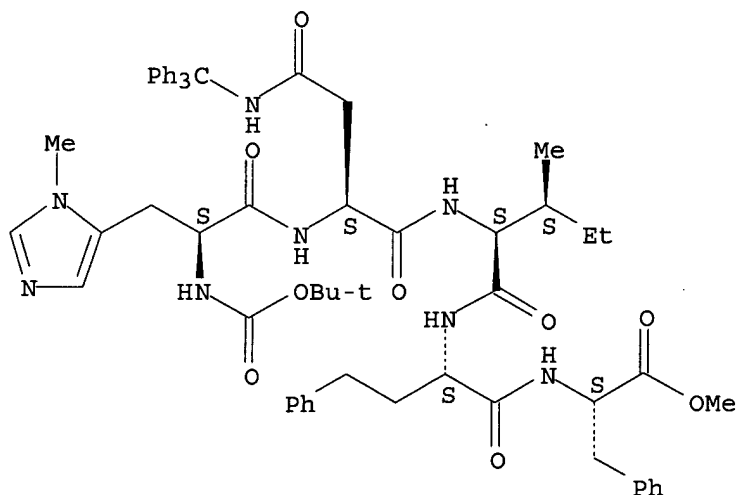
09567863



RN 360077-44-7 CAPLUS

CN L-Phenylalanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-N-(triphenylmethyl)-L-asparaginyl-L-isoleucyl-(.alpha.S)-.alpha.-aminobenzenebutanoyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

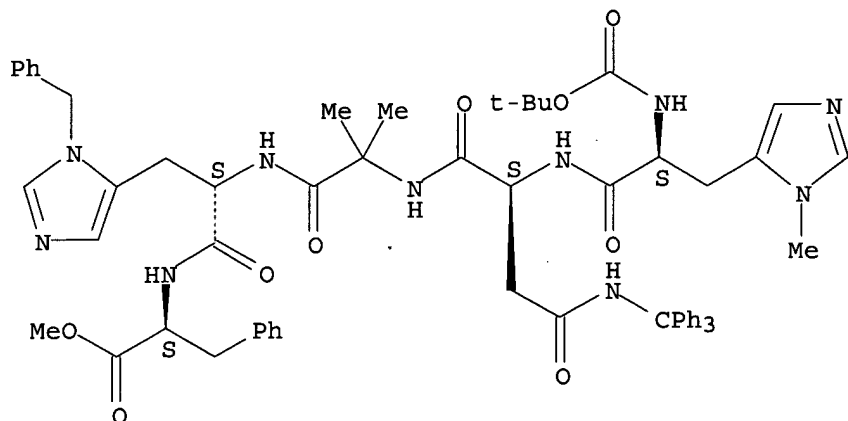


RN 360077-45-8 CAPLUS

CN L-Phenylalanine, N-[(1,1-dimethylethoxy)carbonyl]-3-methyl-L-histidyl-N-(triphenylmethyl)-L-asparaginyl-2-methylalanyl-3-(phenylmethyl)-L-histidyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

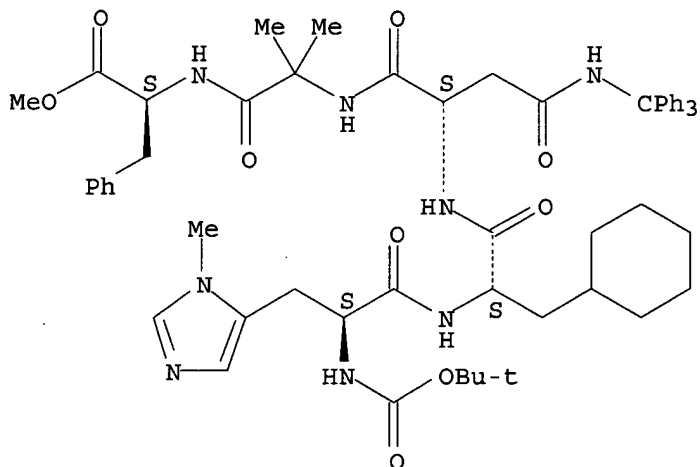
09567863



RN 360077-48-1 CAPLUS

CN L-Phenylalanine, N-[(1,1-dimethylethoxy) carbonyl]-3-methyl-L-histidyl-3-cyclohexyl-L-alanyl-N-(triphenylmethyl)-L-asparaginy-2-methylalanyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:575737 CAPLUS

DN 136:14813

TI Selective signalling of molybdate by a siderophore derivative

AU Jedner, Stephanie B.; James, Richard; Perutz, Robin N.; Duhme-Klair, Anne-K.

CS Department of Chemistry, University of York, Heslington, York, YO10 5DD, UK

SO Journal of the Chemical Society, Dalton Transactions (2001), (16), 2327-2329

CODEN: JCSDA; ISSN: 1472-7773

PB Royal Society of Chemistry

DT Journal

LA English

AB By connecting the siderophore aminochelin of *Azotobacter vinelandii* to a highly fluorescent tris(2,2'-bipyridyl)ruthenium (II)-type

09567863

chromophore, a new modular **sensor** reagent was synthesized and characterized, which selectively signals the presence of molybdate in soln. through luminescence quenching.

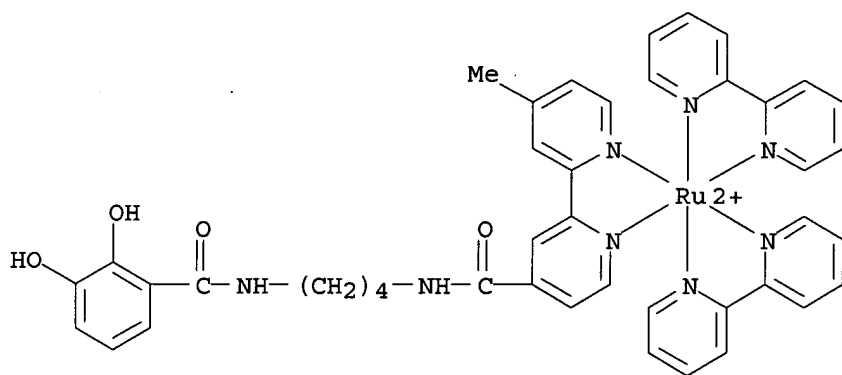
IT 375793-79-6

RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)

(molybdate detn. in soln. by **fluorescence** quenching using aminochelin siderophore tris bipyridyl ruthenium deriv.)

RN 375793-79-6 CAPLUS

CN Ruthenium(2+), bis(2,2'-bipyridine-.kappa.N1,.kappa.N1') [N-[4-[(2,3-dihydroxybenzoyl)amino]butyl]-4'-methyl[2,2'-bipyridine]-4-carboxamide-.kappa.N1,.kappa.N1']-, (OC-6-33)- (9CI) (CA INDEX NAME)



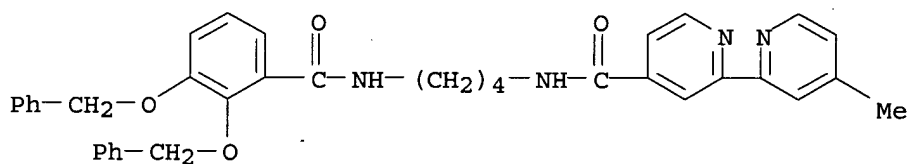
IT 375396-05-7P 375793-80-9P

RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(molybdate detn. in soln. by **fluorescence** quenching using aminochelin siderophore tris bipyridyl ruthenium deriv.)

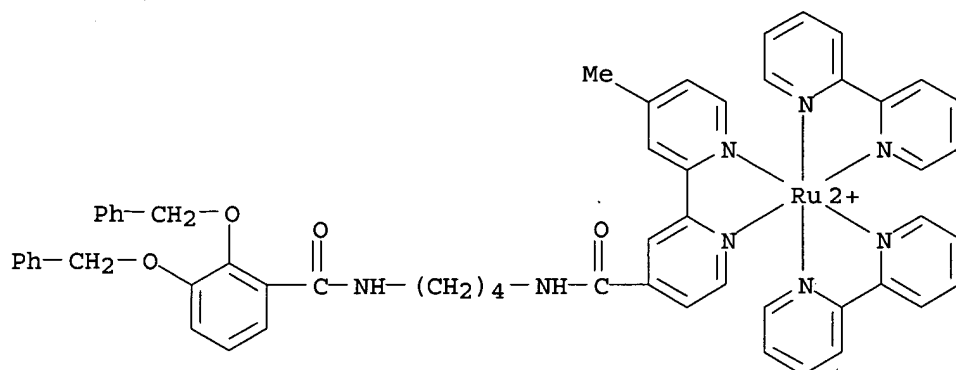
RN 375396-05-7 CAPLUS

CN [2,2'-Bipyridine]-4-carboxamide, N-[4-[[2,3-bis(phenylmethoxy)benzoyl]amino]butyl]-4'-methyl- (9CI) (CA INDEX NAME)

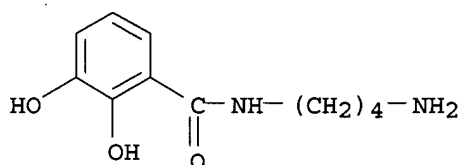


RN 375793-80-9 CAPLUS

CN Ruthenium(2+), bis(2,2'-bipyridine-.kappa.N1,.kappa.N1') [N-[4-[[2,3-bis(phenylmethoxy)benzoyl]amino]butyl]-4'-methyl[2,2'-bipyridine]-4-carboxamide-.kappa.N1,.kappa.N1']-, (OC-6-33)- (9CI) (CA INDEX NAME)



IT 114191-64-9, Aminochelin  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (molybdate detn. in soln. by **fluorescence** quenching using  
 aminochelin siderophore tris bipyridyl ruthenium deriv.)  
 RN 114191-64-9 CAPLUS  
 CN Benzamide, N-(4-aminobutyl)-2,3-dihydroxy- (9CI) (CA INDEX NAME)



RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

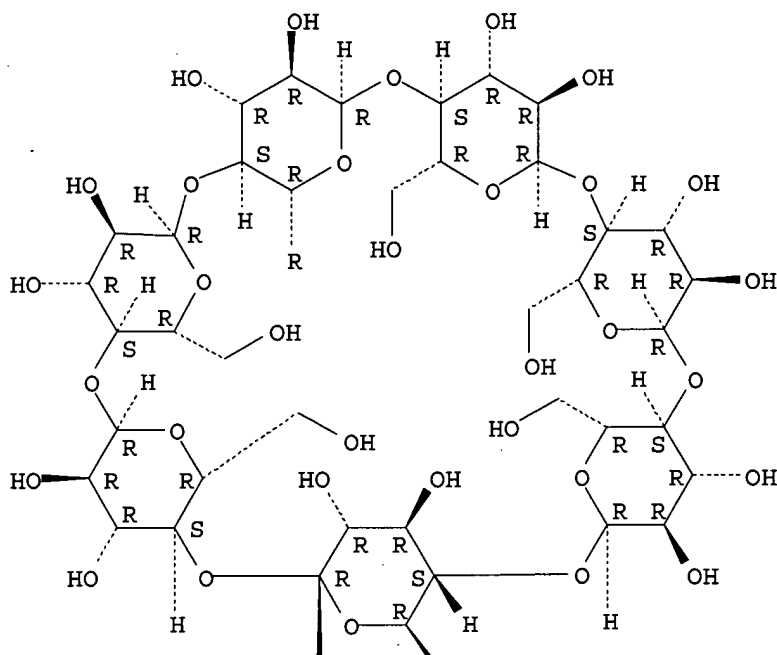
L12 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2001:186514 CAPLUS  
 DN 134:311378  
 TI A molecule detection **sensor** of modified cyclodextrin based on  
 guest-responsive intramolecular **fluorescence** quenching  
 AU Yoshida, Akio; Yamasaki, Toshinao; Aoyagi, Taiyo; Ueno, Akihiko  
 CS Department of Bioengineering, Graduate School of Bioscience and  
 Biotechnology, Tokyo Institute of Technology, Yokohama, 226-8501, Japan  
 SO Heterocycles (2001), 54(2), 597-600  
 CODEN: HTCYAM; ISSN: 0385-5414  
 PB Japan Institute of Heterocyclic Chemistry  
 DT Journal  
 LA English  
 AB A .beta.-cyclodextrin deriv. bearing both pyrene and p-nitrobenzene units  
 exhibits remarkable guest-responsive **fluorescence** quenching and  
 acts as a chemosensor for mol. detection.  
 IT 335293-31-7P 335293-32-8P 335293-33-9P  
 335293-34-0P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and mol. detection **sensor** of modified cyclodextrin  
 based on guest-responsive intramol. **fluorescence** quenching)  
 RN 335293-31-7 CAPLUS  
 CN .beta.-Cyclodextrin, 6A-deoxy-6A-[[4-(4-nitrophenyl)-1-oxobutyl][4-[(1-  
 pyrenylacetyl)amino]butyl]amino]-, mono(tricyclo[3.3.1.1<sup>3,7</sup>]decane-1-  
 carboxylate) (salt) (9CI) (CA INDEX NAME)

09567863

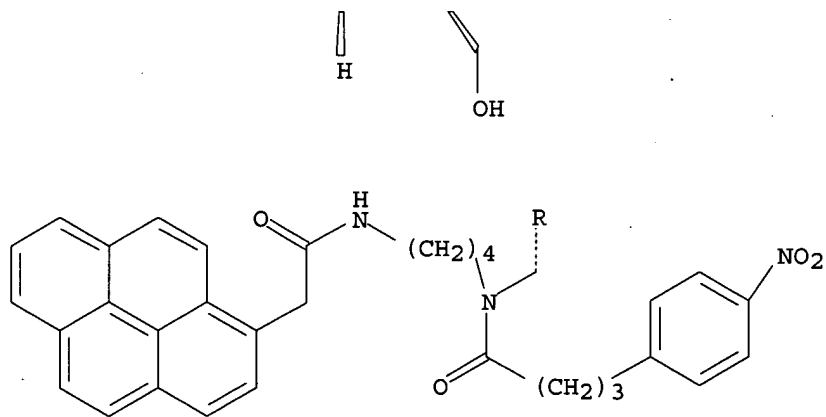
CRN 335293-30-6  
CMF C74 H99 N3 O38

Absolute stereochemistry.

PAGE 1-A



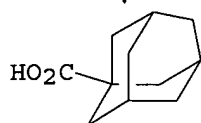
PAGE 2-A



CM 2

CRN 828-51-3  
CMF C11 H16 O2

09567863



RN 335293-32-8 CAPLUS

CN .beta.-Cyclodextrin, 6A-deoxy-6A-[[4-(4-nitrophenyl)-1-oxobutyl][4-[(1-pyrenylacetyl)amino]butyl]amino]-, compd. with tricyclo[3.3.1.1.3]decan-1-ol (1:1) (9CI) (CA INDEX NAME)

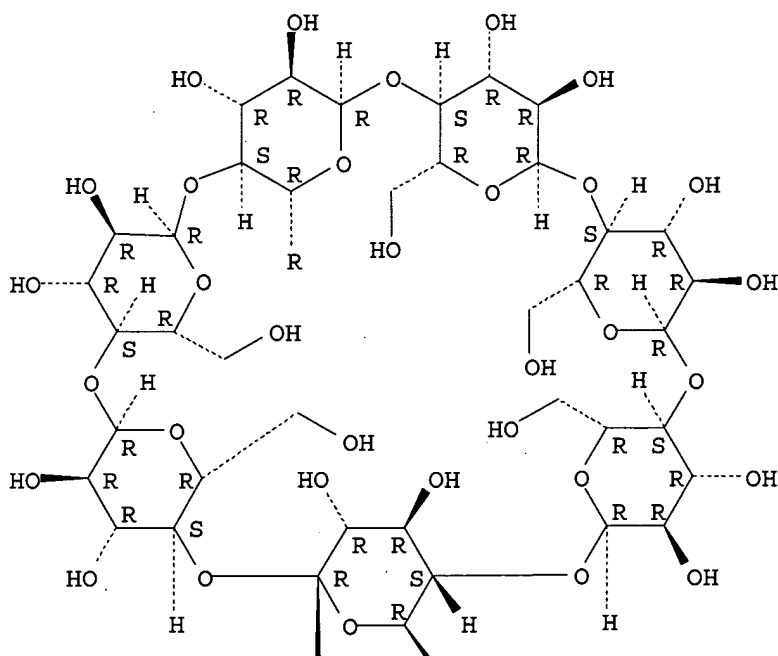
CM 1

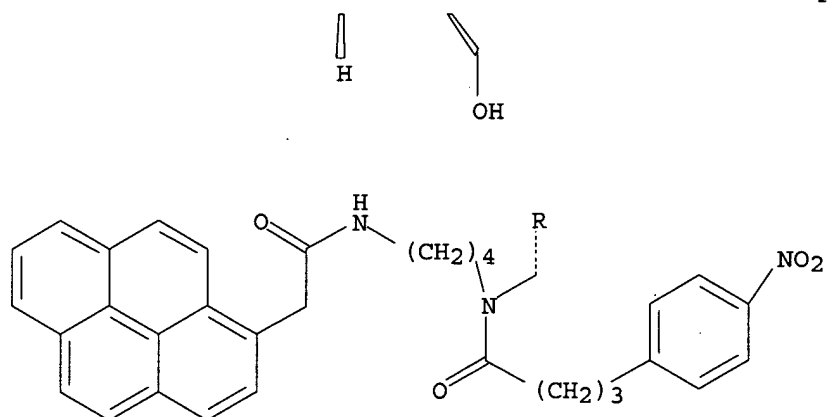
CRN 335293-30-6

CMF C74 H99 N3 O38

Absolute stereochemistry.

PAGE 1-A

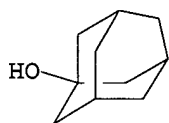




CM 2

CRN 768-95-6

CMF C10 H16 O



RN 335293-33-9 CAPLUS

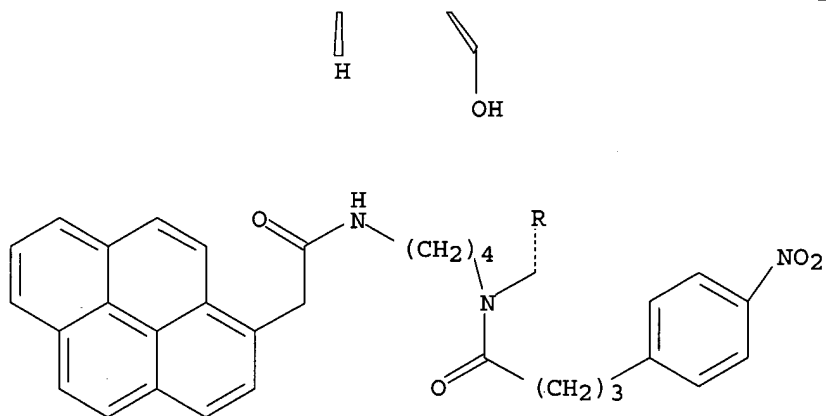
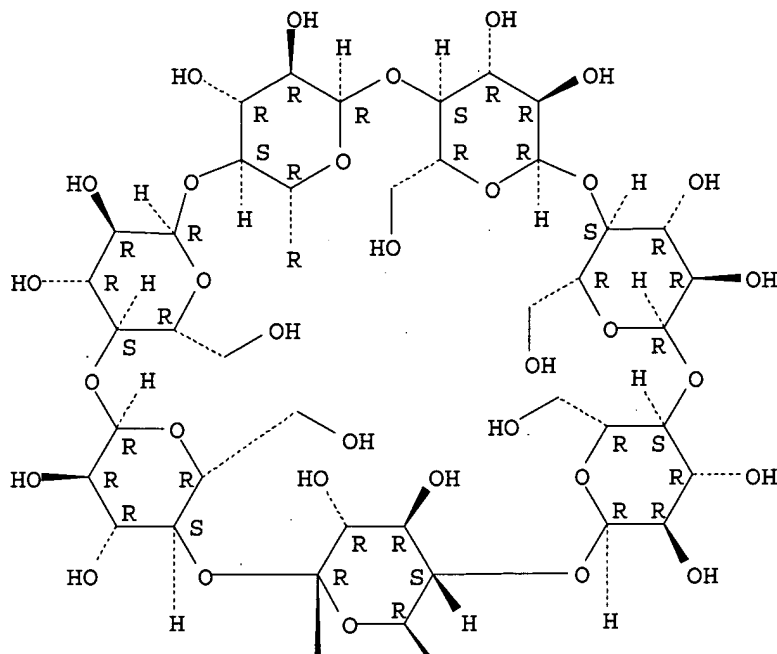
CN .beta.-Cyclodextrin, 6A-deoxy-6A-[[4-(4-nitrophenyl)-1-oxobutyl][4-[(1-pyrenylacetyl)amino]butyl]amino]-, compd. with (1R,2S,4R)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-ol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 335293-30-6

CMF C74 H99 N3 O38

Absolute stereochemistry.



CM 2

CRN 464-43-7

CMF C10 H18 O

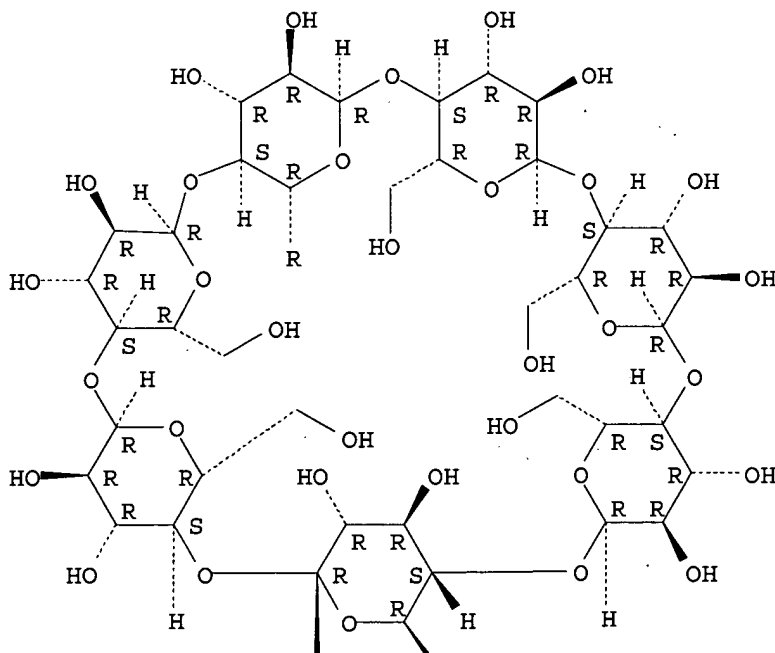
Absolute stereochemistry. Rotation (+).

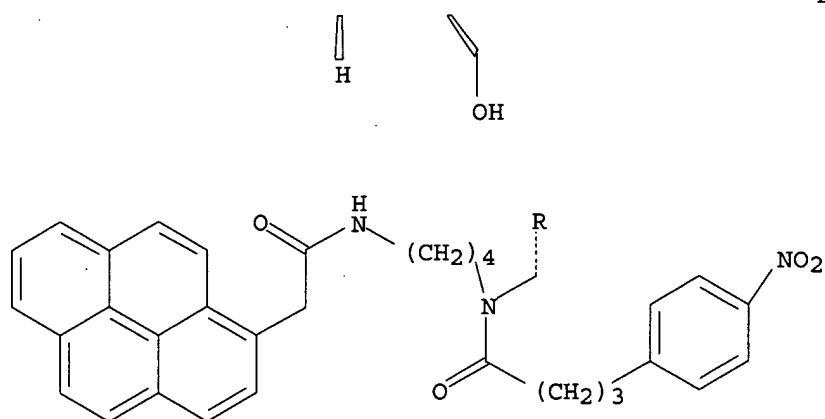
A bicyclic chemical structure, specifically a decalin derivative. The left ring is a cyclohexane ring with a hydroxyl group (HO-) attached to one of its carbons. The right ring is a cyclohexane ring with two methyl groups (Me) attached to adjacent carbons. The two rings are fused at two carbons, each labeled with an 'R'.

CN .beta.-Cyclodextrin, 6A-deoxy-6A-[[4-(4-nitrophenyl)-1-oxobutyl][4-[(1-pyrenylacetyl)amino]butyl]amino]-, compd. with cyclooctanol (1:1) (9CI)  
(CA INDEX NAME)

CRN 335293-30-6  
CMF C74 H99 N3 O38

PAGE 1-A

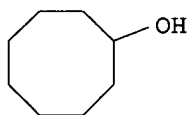




CM 2

CRN 696-71-9

CMF C8 H16 O



IT 335293-30-6P

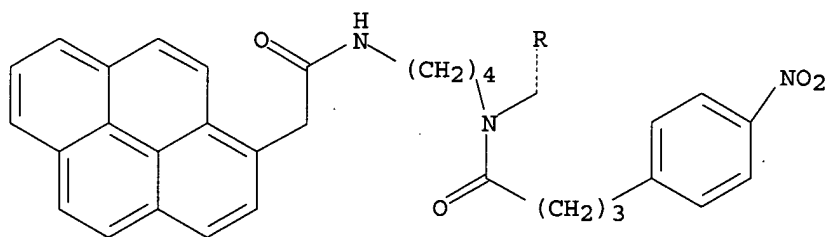
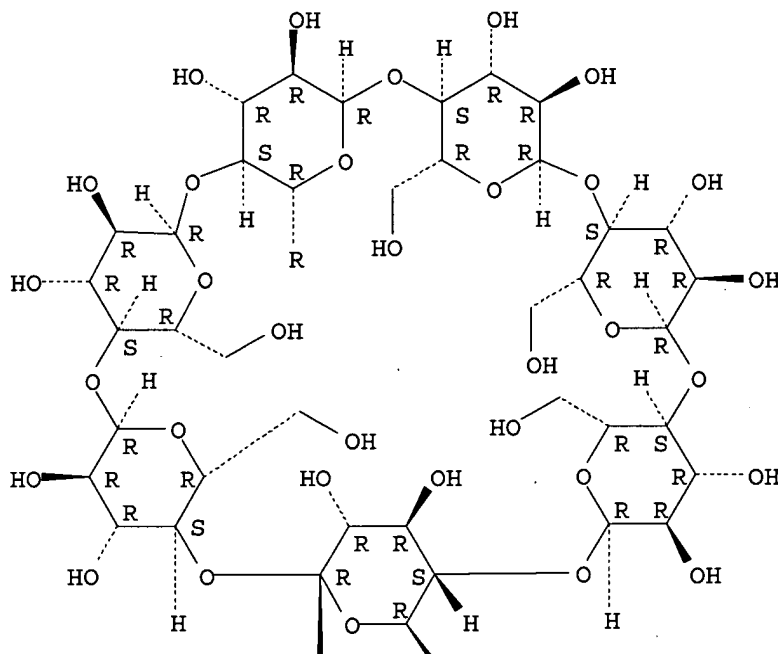
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and mol. detection **sensor** of modified cyclodextrin  
based on guest-responsive intramol. **fluorescence** quenching)

RN 335293-30-6 CAPLUS

CN .beta.-Cyclodextrin, 6A-deoxy-6A-[[4-(4-nitrophenyl)-1-oxobutyl][4-[(1-pyrenylacetyl)amino]butyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



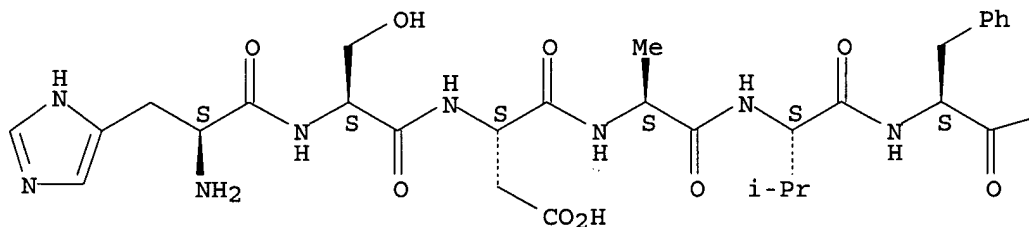
RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

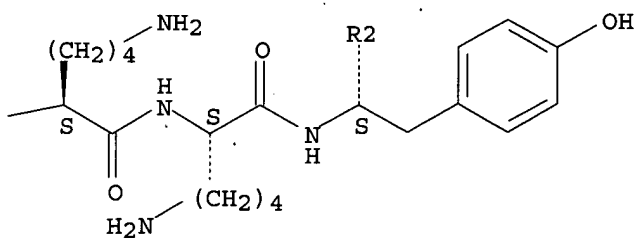
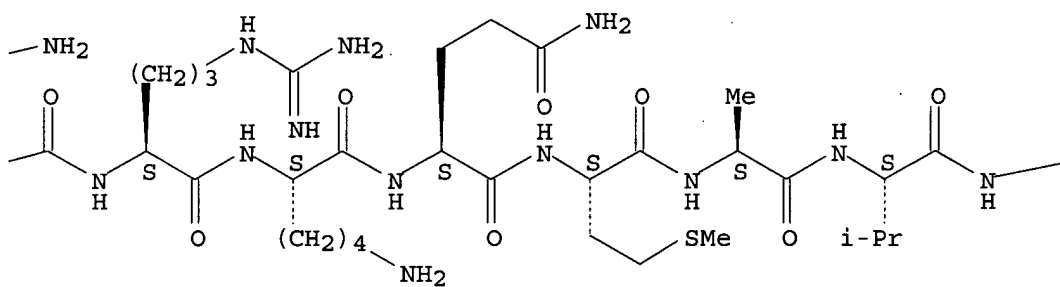
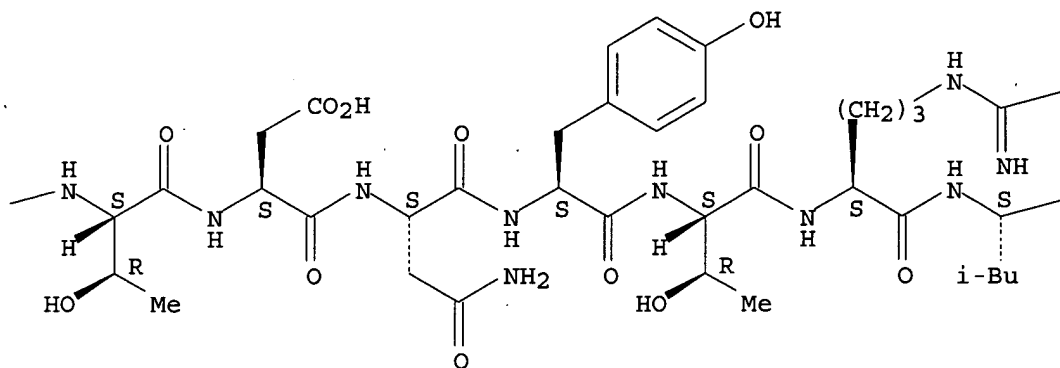
L12 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2000:842156 CAPLUS  
DN 134:14918  
TI Green **fluorescent** protein analogs containing ligand-binding  
**sensor** peptides for use as reporter moieties  
IN Tsien, Roger Y.; Baird, Geoffrey A.  
PA Regents of the University of California, USA  
SO PCT Int. Appl., 94 pp.  
CODEN: PIXXD2  
DT Patent  
LA English

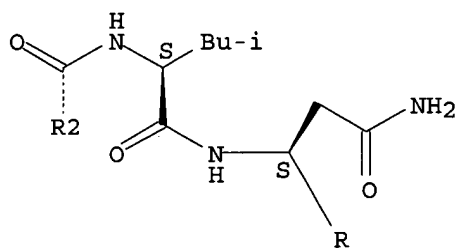
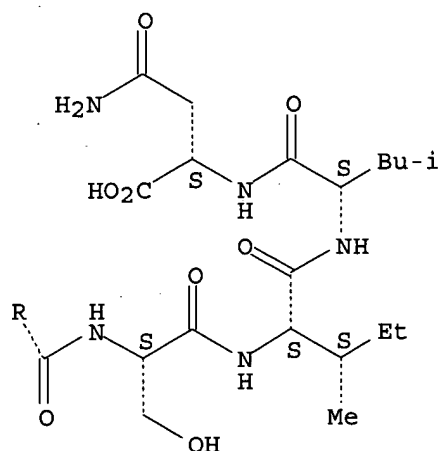
FAN.CNT 2

Absolute stereochemistry.

PAGE 1-A



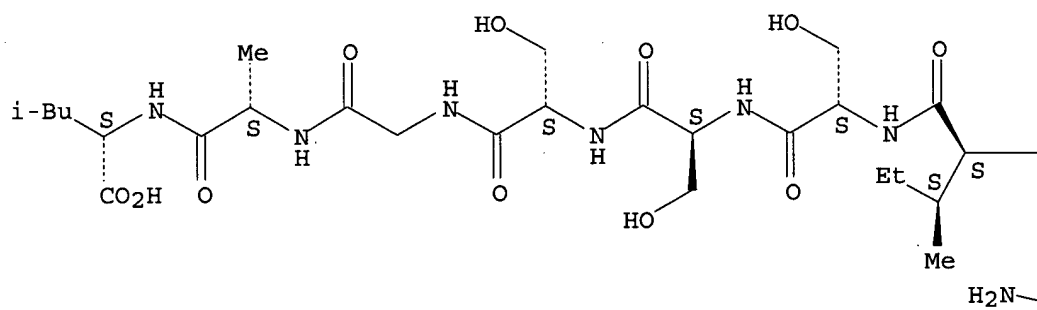
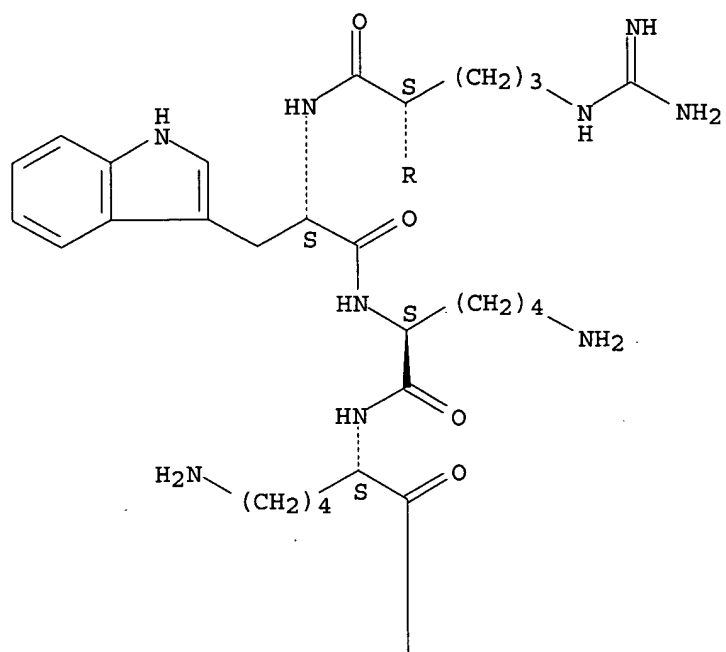


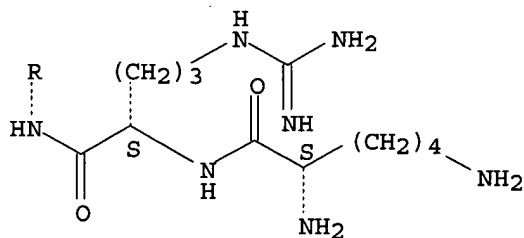
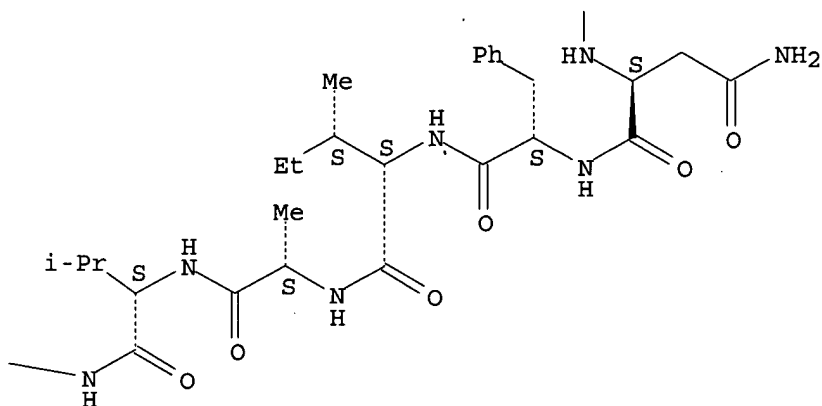
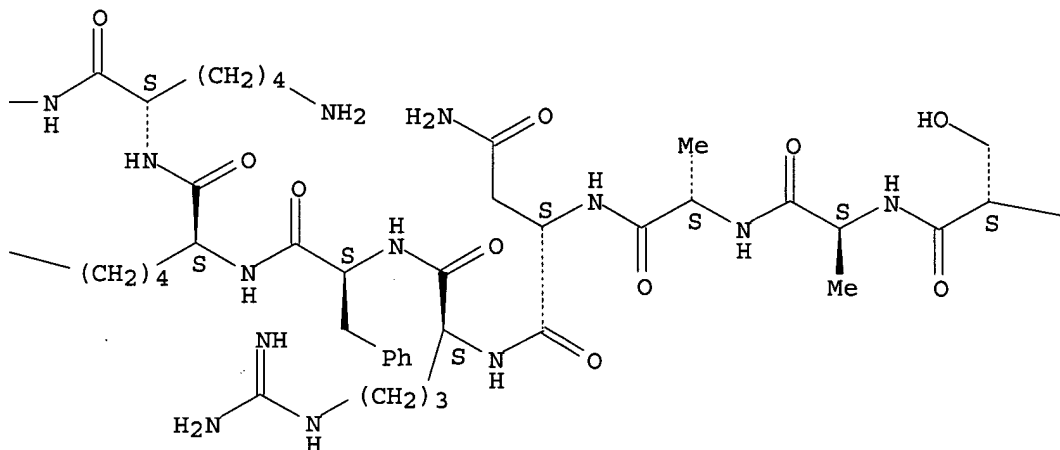


RN 99268-57-2 CAPLUS

CN L-Leucine, L-lysyl-L-arginyl-L-arginyl-L-tryptophyl-L-lysyl-L-lysyl-L-asparaginyl-L-phenylalanyl-L-isoleucyl-L-alanyl-L-valyl-L-seryl-L-alanyl-L-alanyl-L-asparaginyl-L-arginyl-L-phenylalanyl-L-lysyl-L-lysyl-L-isoleucyl-L-seryl-L-seryl-L-serylglycyl-L-alanyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.





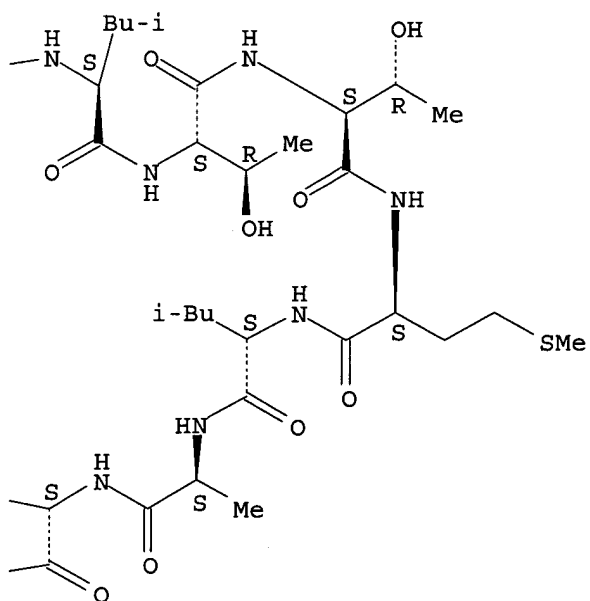
RN 309752-21-4 CAPLUS  
 CN L-Serine, L-alanyl-L-arginyl-L-arginyl-L-lysyl-L-leucyl-L-lysylglycyl-L-alanyl-L-isoleucyl-L-leucyl-L-threonyl-L-threonyl-L-methionyl-L-leucyl-L-alanyl-L-threonyl-L-arginyl-L-asparaginy-L-phenylalanyl- (9CI) (CA INDEX NAME)

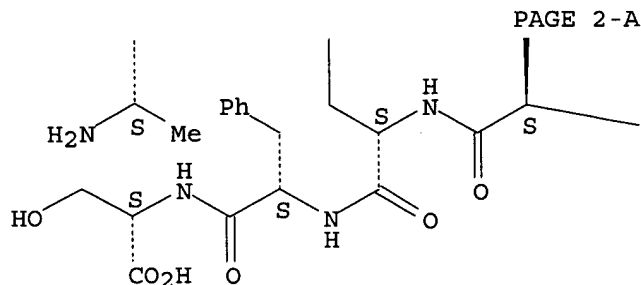
Absolute stereochemistry.

The image displays several chemical structures of thiocarbonyl compounds, including thioureas, thiocarbonyl sulfides, and thiocarbonyl hydrazides, with various substituents like amino groups, alkyl chains, and heterocycles.

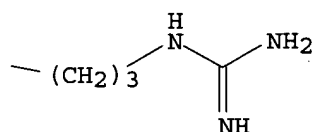
- Top structure:** A complex molecule featuring a thiocarbonyl group ( $\text{C}=\text{S}$ ) bonded to a hydrazide group ( $\text{NH}-\text{C}(=\text{O})-\text{NH}-$ ), which is further substituted with a long alkyl chain ( $(\text{CH}_2)_4$ ), an amino group ( $\text{H}_2\text{N}$ ), and a thioether linkage to a thiazolidine ring. The thiazolidine ring is substituted with a methyl group ( $\text{Me}$ ) and an ethyl group ( $\text{Et}$ ).
- Middle structure:** A thiocarbonyl compound with a thiocarbonyl group ( $\text{C}=\text{S}$ ) bonded to a hydrazide group ( $\text{NH}-\text{C}(=\text{O})-\text{NH}-$ ), which is further substituted with a long alkyl chain ( $(\text{CH}_2)_4$ ), an amino group ( $\text{H}_2\text{N}$ ), and a thioether linkage to a thiazolidine ring. The thiazolidine ring is substituted with a methyl group ( $\text{Me}$ ) and an ethyl group ( $\text{Et}$ ).
- Bottom structure:** A thiocarbonyl compound with a thiocarbonyl group ( $\text{C}=\text{S}$ ) bonded to a hydrazide group ( $\text{NH}-\text{C}(=\text{O})-\text{NH}-$ ), which is further substituted with a long alkyl chain ( $(\text{CH}_2)_3$ ), an amino group ( $\text{H}_2\text{N}$ ), and a thioether linkage to a thiazolidine ring. The thiazolidine ring is substituted with a methyl group ( $\text{Me}$ ) and an ethyl group ( $\text{Et}$ ).

PAGE 1-B





PAGE 2-B



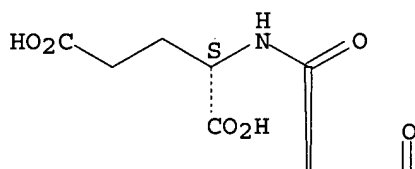
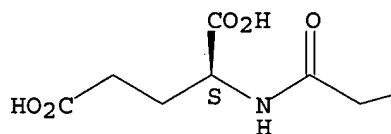
L12 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2000:514819 CAPLUS  
 DN 133:252818  
 TI Electrostatic core shielding in dendritic polyglutamic porphyrins  
 AU Vinogradov, Sergei A.; Wilson, David F.  
 CS Department of Biochemistry and Biophysics School of Medicine, University of Pennsylvania, Philadelphia, PA, 19104, USA  
 SO Chemistry--A European Journal (2000), 6(13), 2456-2461  
 CODEN: CEUJED; ISSN: 0947-6539  
 PB Wiley-VCH Verlag GmbH  
 DT Journal  
 LA English  
 AB Polyglutamic dendritic porphyrins of the general formula H<sub>2</sub>Porph-GluNOR [H<sub>2</sub>Porph = free-base meso-tetra-4-carboxyphenylporphyrin (H<sub>2</sub>TCPP), Glu = dendrimer layer composed of L-glutamates, N = 1-3: dendrimer generation no., R = terminal group (All, H)] were synthesized and characterized with NMR and MALDI-TOF mass spectroscopy. The free-acid terminated compds. were found to be highly sol. in water, with both their absorption and **fluorescence** spectra dependent on pH. The value of the porphyrin mono-protonation const., measured by **fluorescence** rationing, increased monotonously in the studied series of dendrimers (pK<sub>3</sub> = 6.31, 6.70, and 6.98, for N = 1, 2, 3, resp.). For the largest dendrimer, H<sub>2</sub>PorphGlu<sub>3</sub>OH, pK<sub>3</sub> was found shifted by almost two pH units relative to the non-modified H<sub>2</sub>Porph. The second protonation const. (K<sub>4</sub>) was much less affected by the dendritic substituents. At pH values less than 3.5 there were noticeable changes in **fluorescence** intensity and quantum yield even for the highly sol. H<sub>2</sub>PorphGlu<sub>3</sub>OH. This suggests that interactions between individual dendritic mols. in soln. are favored by full protonation of the peripheral glutamic carboxyls. The "dendrimer-protected" porphyrins are convenient **fluorescent** pH sensors in the biol. pH range.  
 IT 294846-07-4P 294846-09-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (G2; prepn. and characterization of electrostatic core shielding in dendritic polyglutamic porphyrins)  
 RN 294846-07-4 CAPLUS  
 CN L-Glutamic acid, 1,1'',1''',1''''- [21H,23H-porphine-5,10,15,20-

09567863

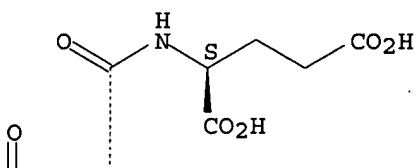
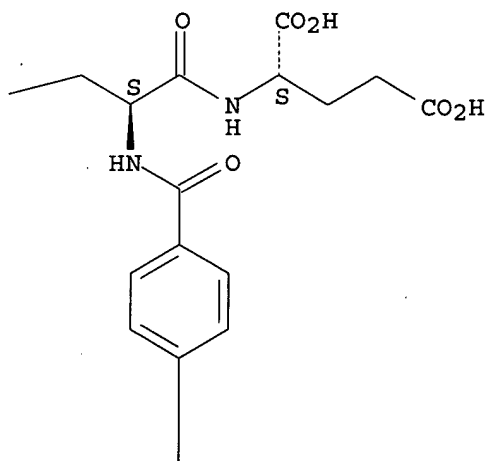
tetrayltetrakis(4,1-phenylenecarbonyl)]tetrakis[L-glutamoylbis- (9CI) (CA  
INDEX NAME)

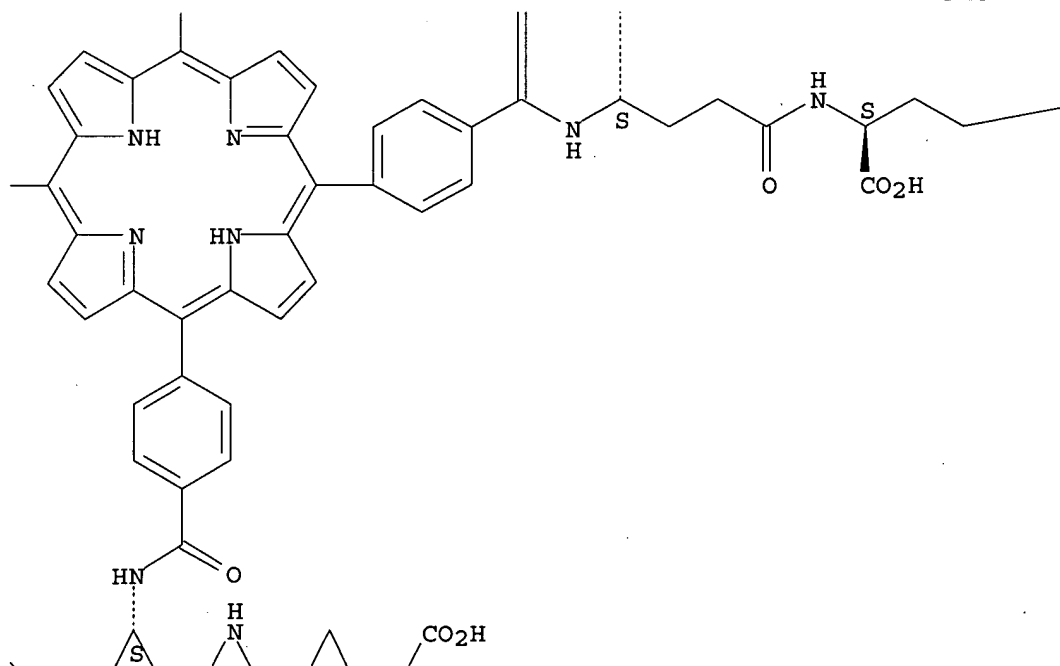
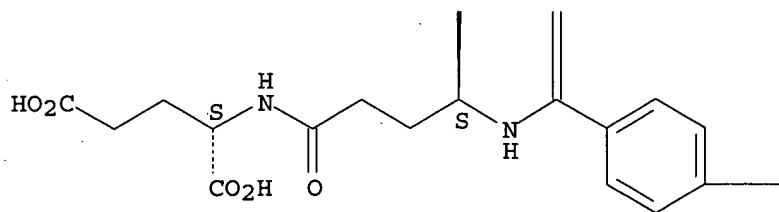
Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

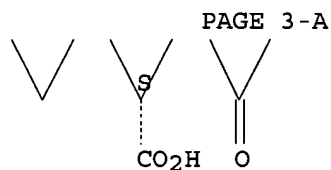




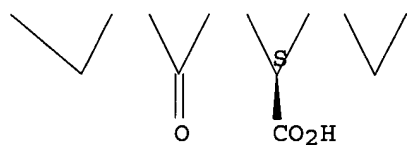
09567863

PAGE 2-C

—CO<sub>2</sub>H



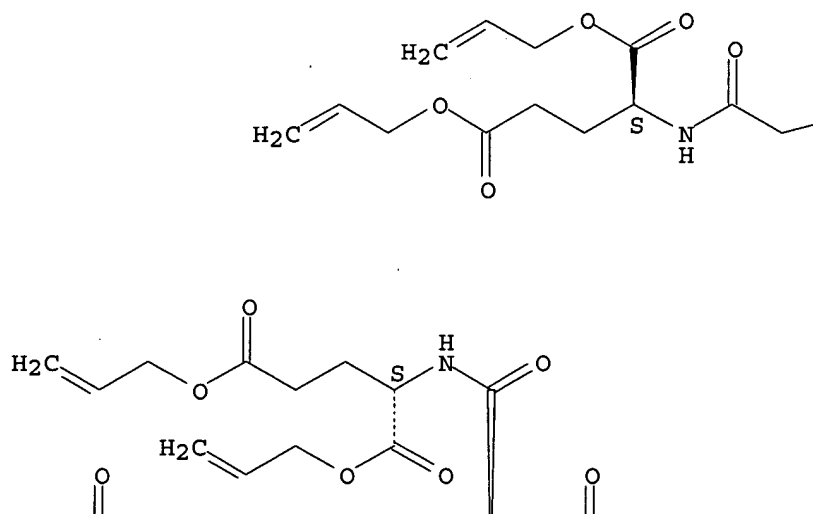
PAGE 3-B

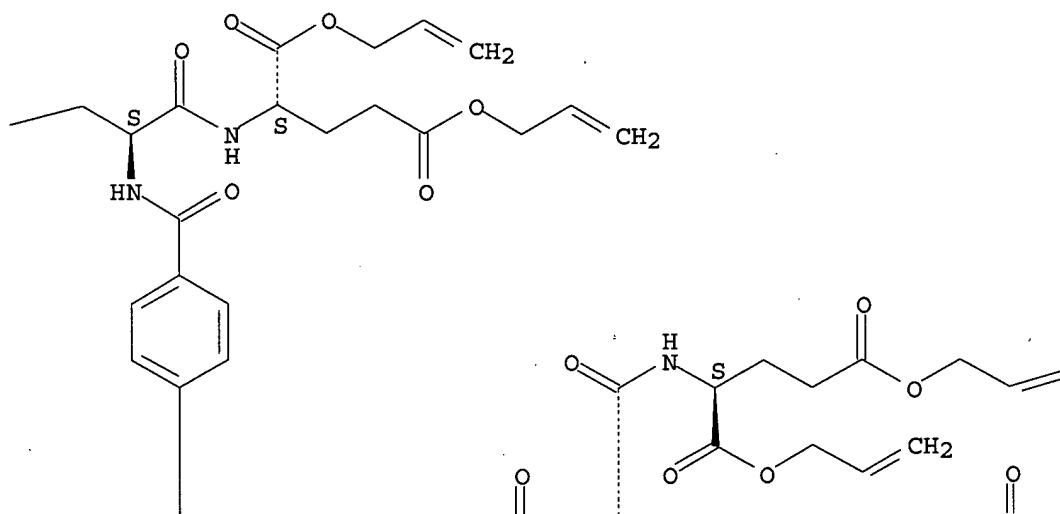


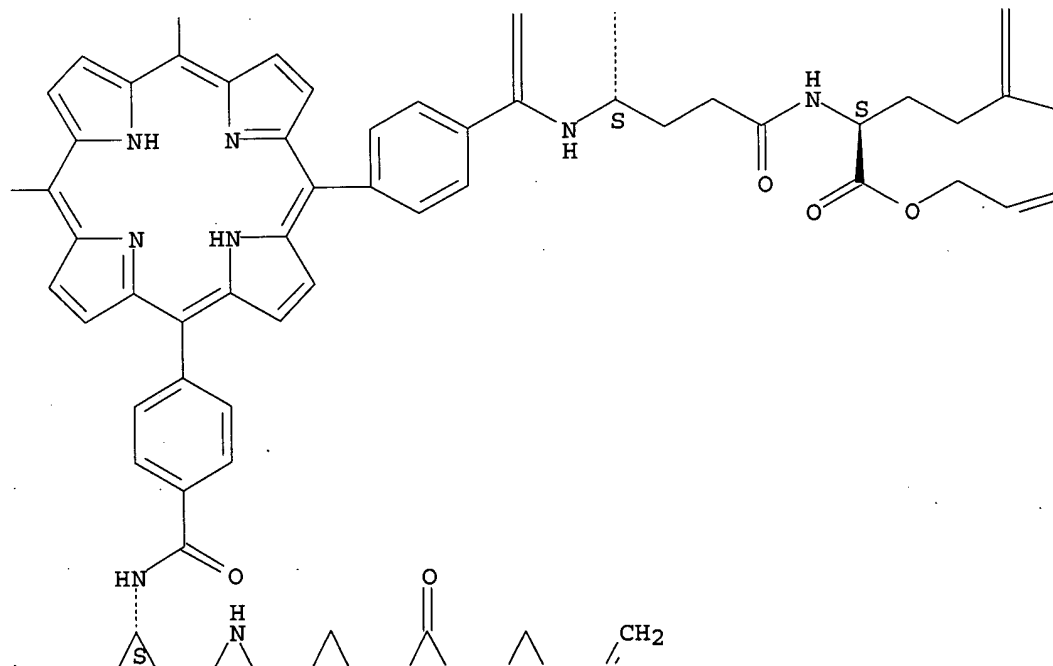
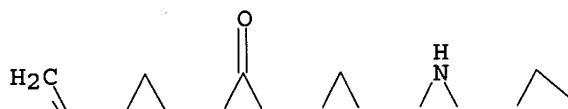
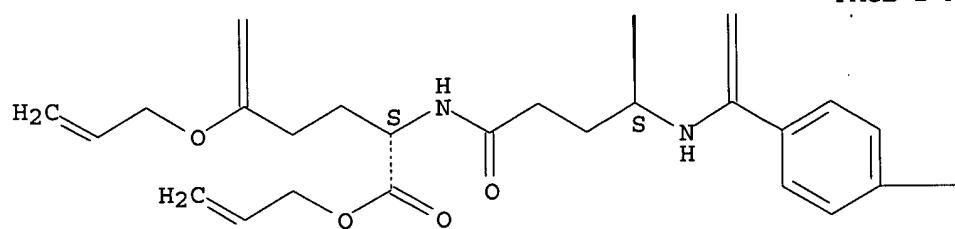
RN 294846-09-6 CAPLUS  
CN L-Glutamic acid, 1,1'',1''',1''''- [21H,23H-porphine-5,10,15,20-tetrayltetrakis(4,1-phenylenecarbonyl)]tetrakis[L-glutamoylbis-, hexadeca-2-propenyl ester (9CI) (CA INDEX NAME)

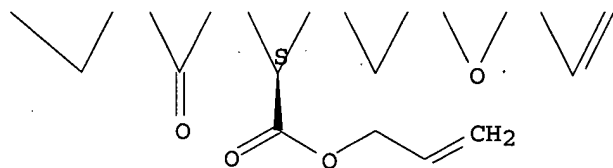
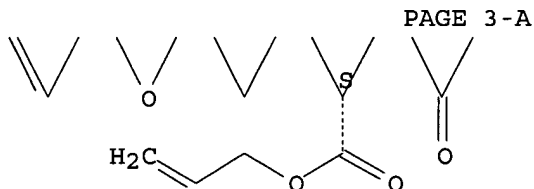
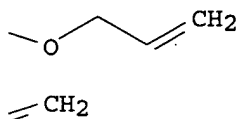
Absolute stereochemistry.

PAGE 1-A









RE.CNT 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1999:206922 CAPLUS  
DN 130:252601  
TI Cyclodextrin derivatives useful for molecular recognition sensors  
IN Ueno, Akihiko  
PA Japan  
SO Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11080207	A2	19990326	JP 1997-252752	19970902
PRAI	JP 1997-252752		19970902		

OS MARPAT 130:252601

AB Cyclodextrin derivs. X2A[CD] ([CD] = cyclodextrin skeleton; A = trivalent connecting group; X = arom. ring) are claimed. Reaction of 6-O-tosyl-.beta.-cyclodextrin with 1,4-diaminobutane and amidation of the product with 1-pyreneacetic acid gave a .beta.-cyclodextrin deriv. Excimer **fluorescence** intensity of the compd. at 490 nm increased when (-)-borneol was added as a guest mol.

IT 208596-91-2P

RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); PROC (Process); USES (Uses)  
(prepn. of cyclodextrin derivs. useful for mol. recognition sensors)

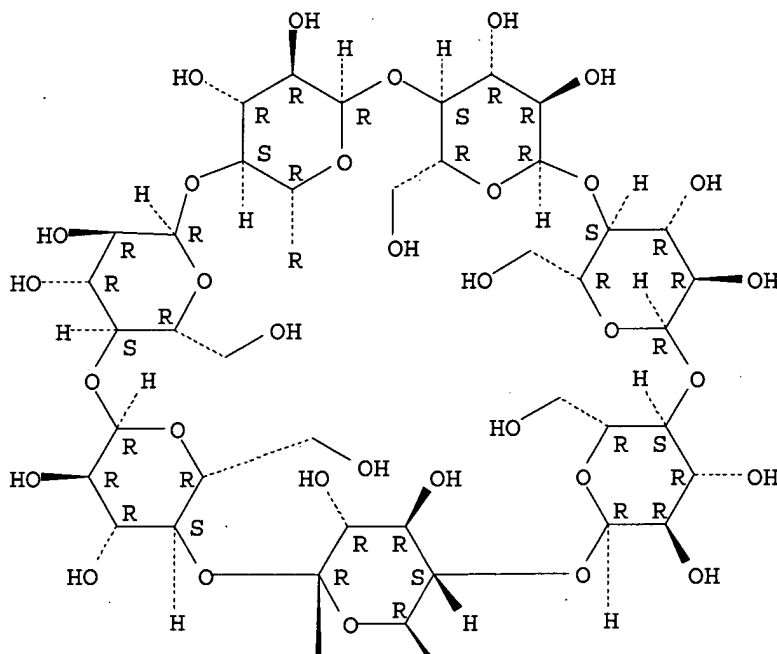
09567863

RN 208596-91-2 CAPLUS

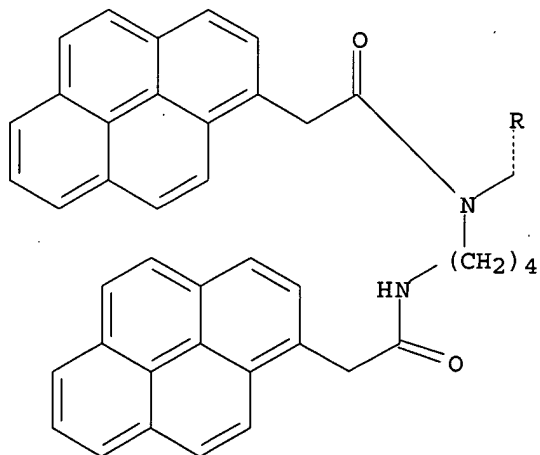
CN .beta.-Cyclodextrin, 6A-deoxy-6A-[(1-pyrenylacetyl)[4-[(1-pyrenylacetyl)amino]butyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



09567863

IT 208596-90-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

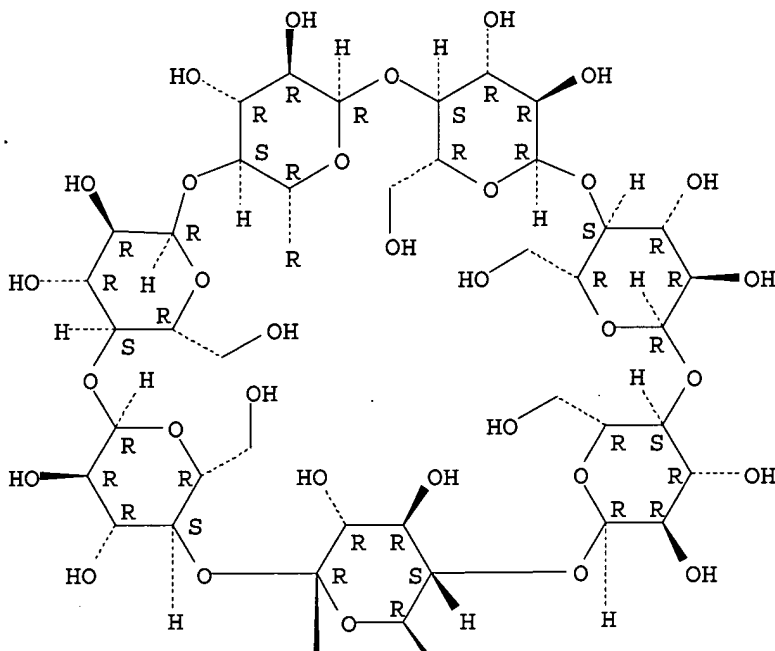
(prepn. of cyclodextrin derivs. useful for mol. recognition sensors)

RN 208596-90-1 CAPLUS

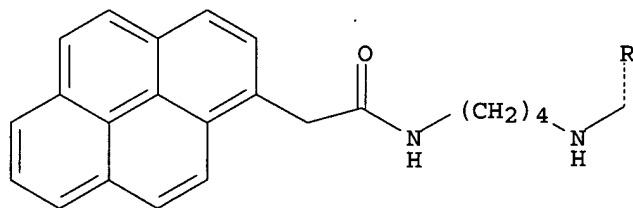
CN .beta.-Cyclodextrin, 6A-deoxy-6A-[[4-[(1-pyrenylacetyl)amino]butyl]amino]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L12 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1997:211303 CAPLUS

DN 126:277759

TI Fluorescent Chemosensors for Divalent Zinc Based on Zinc Finger

Domains. Enhanced Oxidative Stability, Metal Binding Affinity, and Structural and Functional Characterization

AU Walkup, Grant K.; Imperiali, Barbara

CS Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA

SO Journal of the American Chemical Society (1997), 119(15), 3443-3450  
CODEN: JACSAT; ISSN: 0002-7863

PB American Chemical Society

DT Journal

LA English

AB The design, synthesis, and characterization of a family of peptides modeled after the zinc finger domains, which has led to the prodn. of a **fluorescent** peptidyl **sensor** for divalent zinc with enhanced oxidative stability, are reported. The chemosensor design comprises a synthetic peptidyl template and a covalently attached **fluorescent** reporter which is sensitive to metal-induced conformational changes in the polypeptide construct. The modular synthetic approach employed for the construction of these chemosensors allows independent modification of the metal coordination sphere and the **fluorescent** reporter group. The structural, **fluorescence**, and zinc binding properties of these peptides and the effects of integrating various environment sensitive fluorophores, 4-(dimethylamino)benzamide, 5-(dimethylamino)naphthalenesulfonamide, and 3-carboxamidocoumarin, are described. Manipulation of the ligand sphere, by removal of one of the pair of thiolate ligands, was undertaken to enhance the oxidative stability of the chemosensor. For each of these peptides, the apparent dissocn. const. of the peptide-zinc complex has been detd. by spectroscopic methods. High-affinity binding, with dissocn. consts. ranging from 7 pM to 65 nM, is obsd.

IT 188970-80-1P 188970-82-3P 188970-85-6P

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

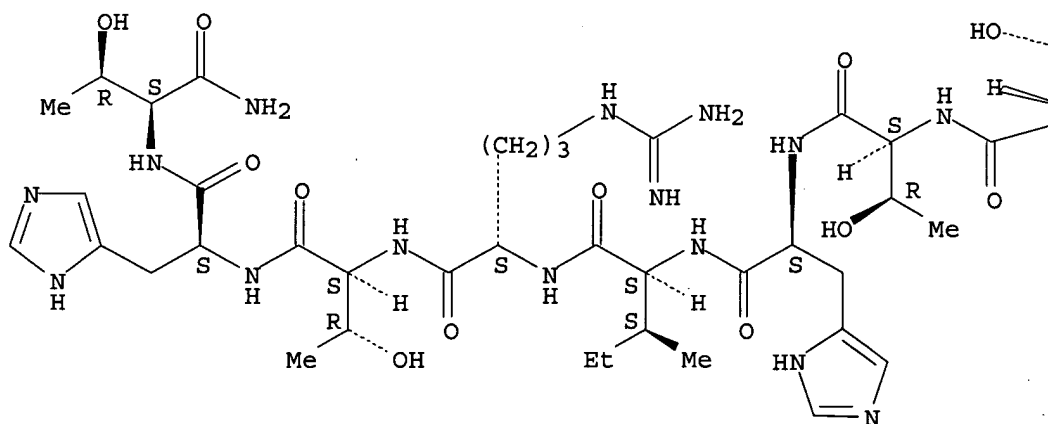
(enhanced oxidative stability, metal binding affinity, and structural and functional characterization of **fluorescent** chemosensors for divalent zinc based on zinc finger domains)

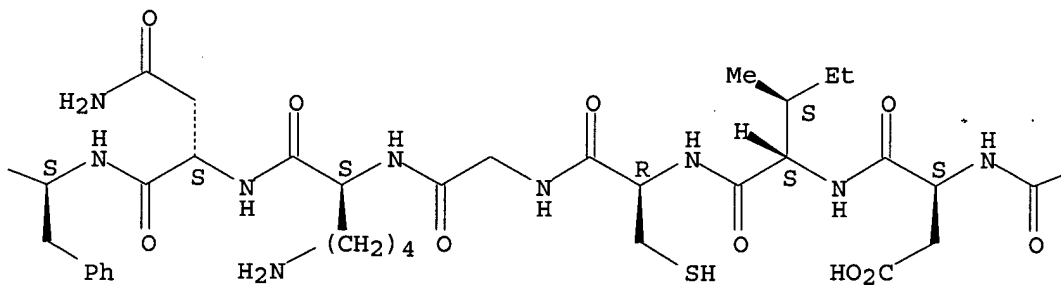
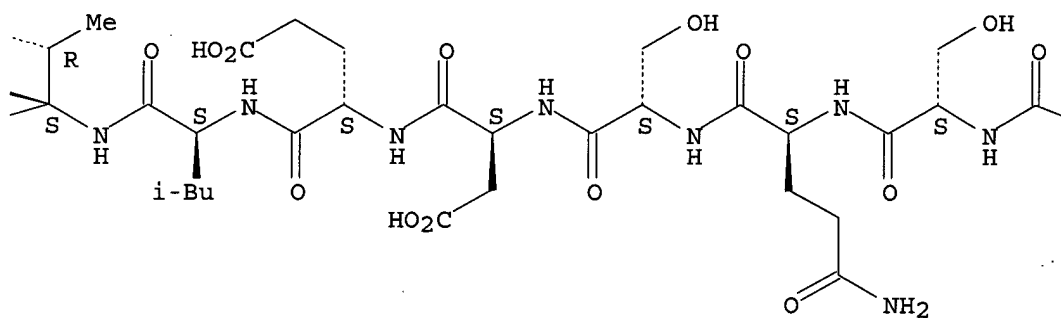
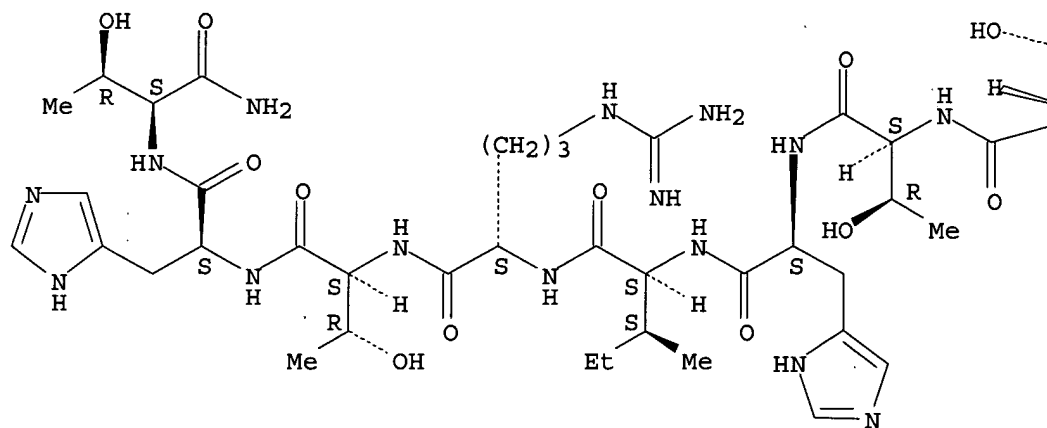
RN 188970-80-1 CAPLUS

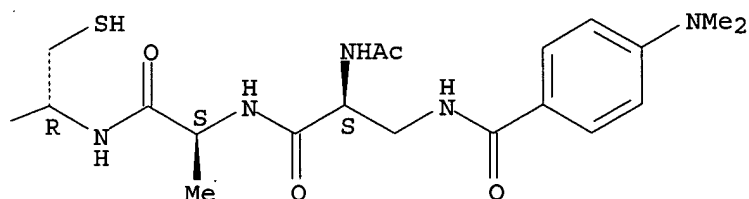
CN L-Threoninamide, N-acetyl-3-[[4-(dimethylamino)benzoyl]amino]-L-alanyl-L-alanyl-L-cysteinyl-L-.alpha.-aspartyl-L-isoleucyl-L-cysteinylglycyl-L-lysyl-L-asparaginyl-L-phenylalanyl-L-seryl-L-glutamyl-L-seryl-L-.alpha.-aspartyl-L-.alpha.-glutamyl-L-leucyl-L-threonyl-L-threonyl-L-histidyl-L-isoleucyl-L-arginyl-L-threonyl-L-histidyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



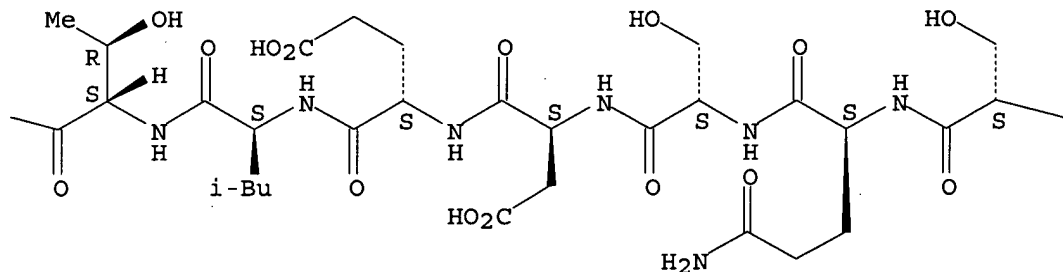
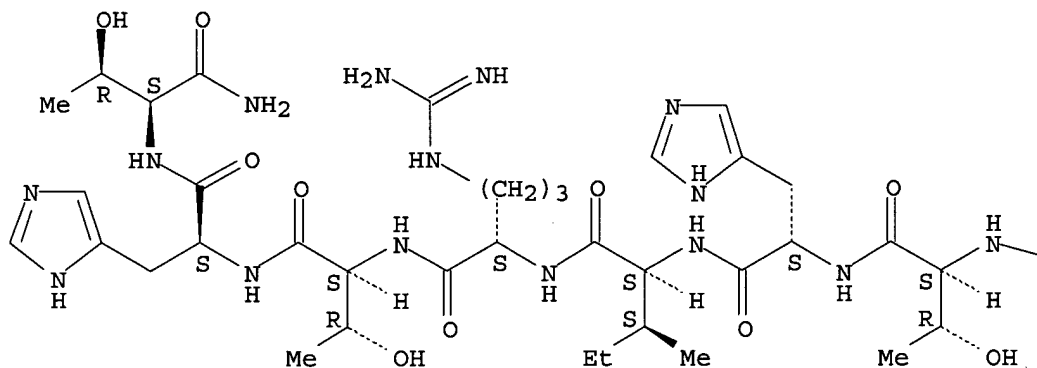


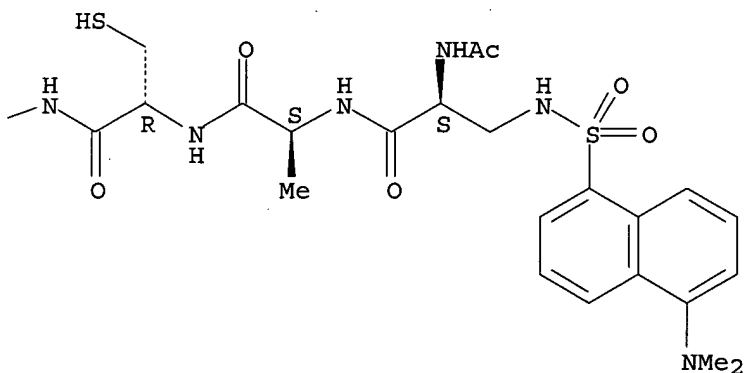
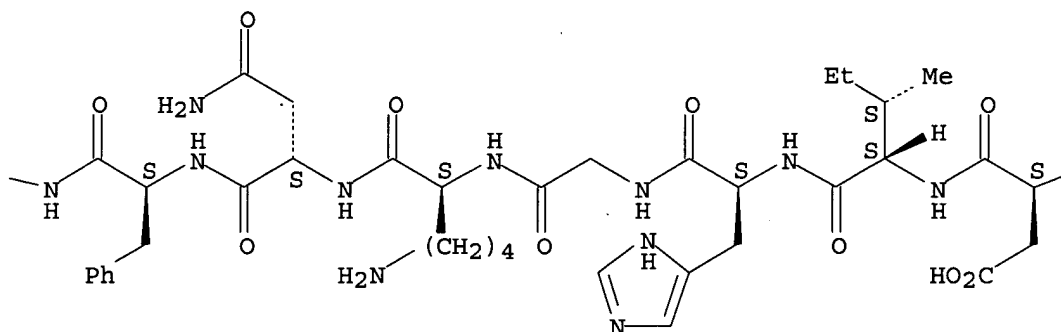


RN 188970-82-3 CAPLUS

CN L-Threoninamide, N-acetyl-3-[[[5-(dimethylamino)-1-naphthalenyl]sulfonyl]amino]-L-alanyl-L-alanyl-L-cysteinyl-L-.alpha.-aspartyl-L-isoleucyl-L-histidylglycyl-L-lysyl-L-asparaginyl-L-phenylalanyl-L-seryl-L-glutaminyl-L-seryl-L-.alpha.-aspartyl-L-.alpha.-glutamyl-L-leucyl-L-threonyl-L-threonyl-L-histidyl-L-isoleucyl-L-arginyl-L-threonyl-L-histidyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

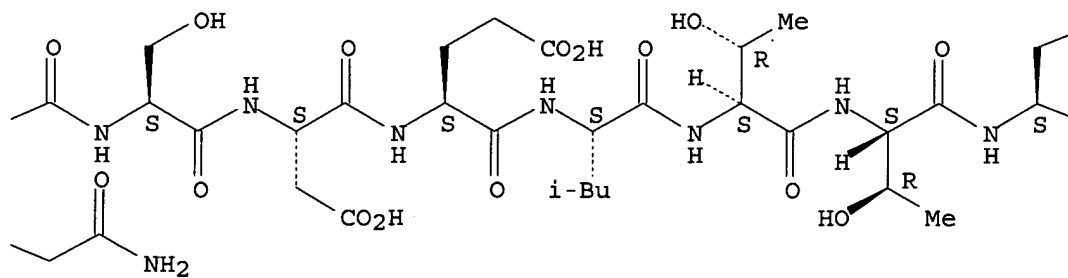
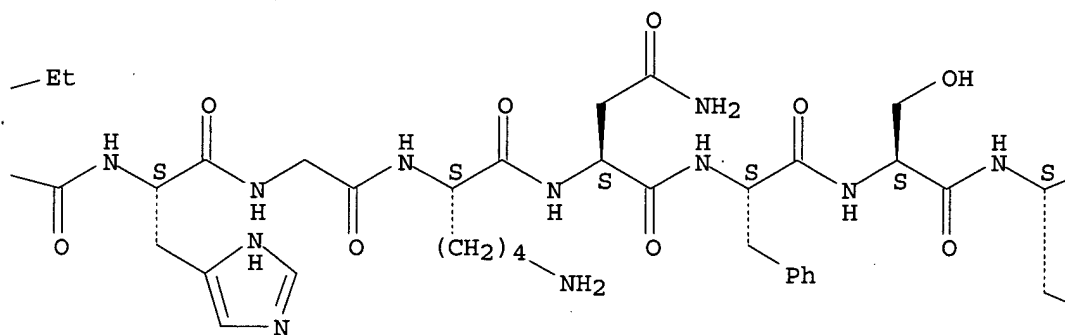
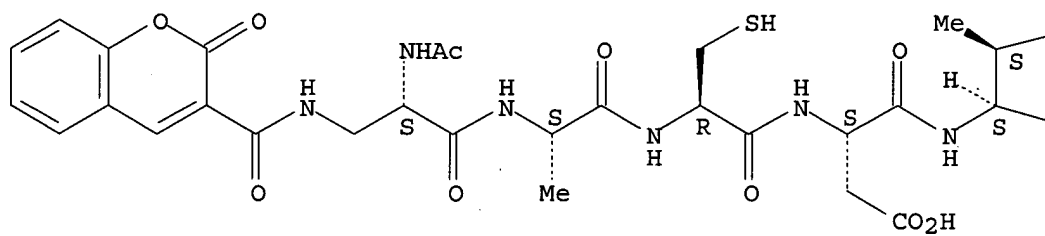


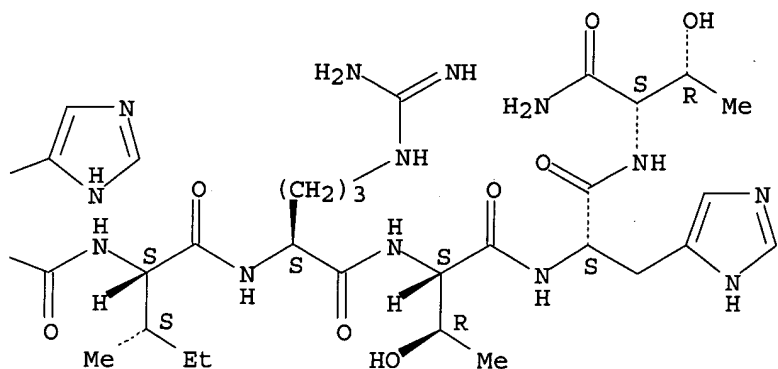


RN 188970-85-6 CAPLUS

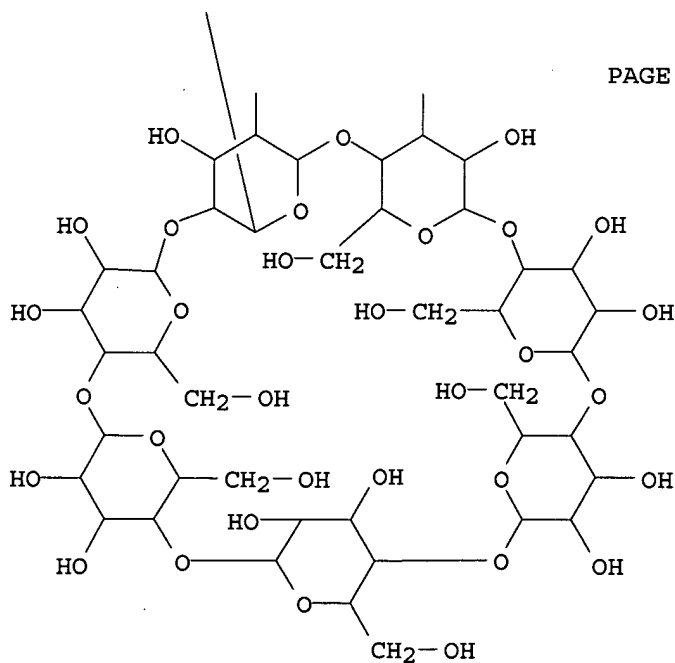
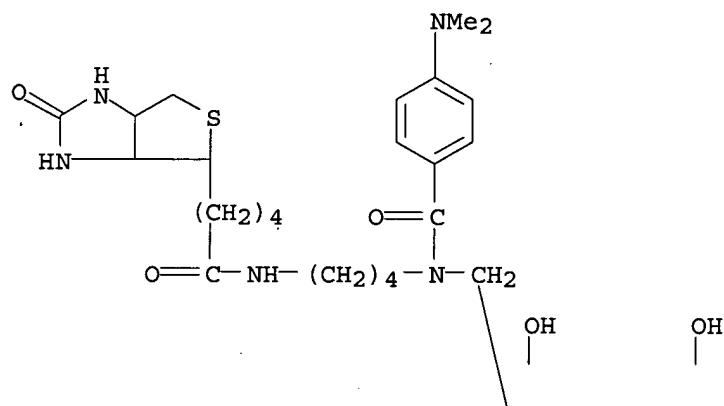
CN L-Threoninamide, N-acetyl-3-[[[(2-oxo-2H-1-benzopyran-3-yl) carbonyl] amino] -  
L-alanyl-L-alanyl-L-cysteinyl-L-.alpha.-aspartyl-L-isoleucyl-L-  
histidylglycyl-L-lysyl-L-asparaginyl-L-phenylalanyl-L-seryl-L-glutaminyl-L-  
seryl-L-.alpha.-aspartyl-L-.alpha.-glutamyl-L-leucyl-L-threonyl-L-threonyl-  
L-histidyl-L-isoleucyl-L-arginyl-L-threonyl-L-histidyl- (9CI) (CA INDEX  
NAME)

Absolute stereochemistry.





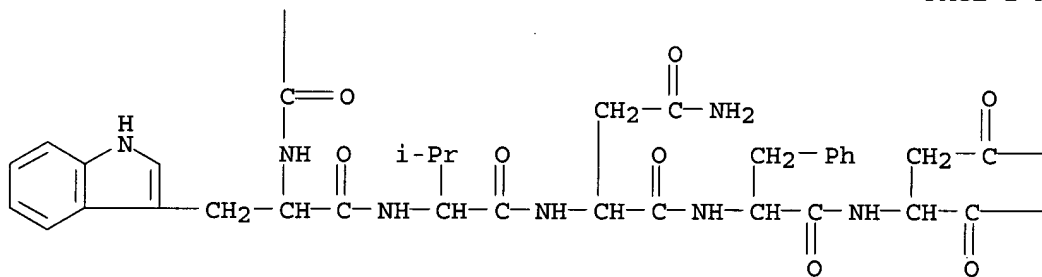
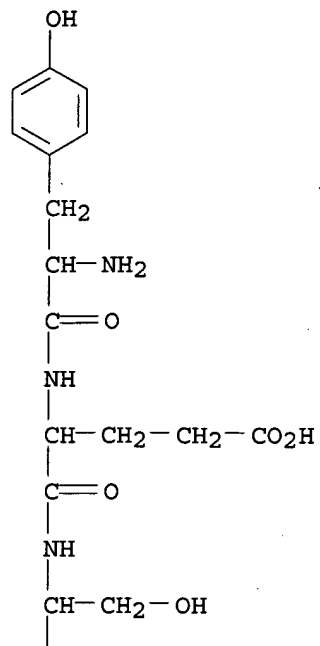
L12 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1996:222956 CAPLUS  
 DN 124:337019  
 TI A **fluorescent** molecule-recognition **sensor** with a protein as an environmental factor  
 AU Wang, Juan; Nakamura, Asao; Hamasaki, Keita; Ikeda, Hiroshi; Ikeda, Tsukasa; Ueno, Akihiko  
 CS Faculty Bioscience Biotechnology, Tokyo Institute Technology, Yokohama, 226, Japan  
 SO Chemistry Letters (1996), (4), 303-4  
 CODEN: CMLTAG; ISSN: 0366-7022  
 PB Nippon Kagakkai  
 DT Journal  
 LA English  
 AB Modified cyclodextrin, which has p-N,N-dimethylaminobenzoyl and biotin units as fluorophore and protein-binding site, resp., exhibits an enhanced sensing ability for various org. compds. in aq. soln. in the presence of avidin.  
 IT **176514-81-1**  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (modified cyclodextrin prepn. with conjugated fluorophore and protein-binding site and reaction with avidin)  
 RN 176514-81-1 CAPLUS  
 CN .beta.-Cyclodextrin, 6A-deoxy-6A-[[4-(dimethylamino)benzoyl][4-[[5-(hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl)-1-oxopentyl]amino]butyl]amino]-, [3aS-(3a.alpha.,4.beta.,6a.alpha.)]- (9CI)  
 (CA INDEX NAME)

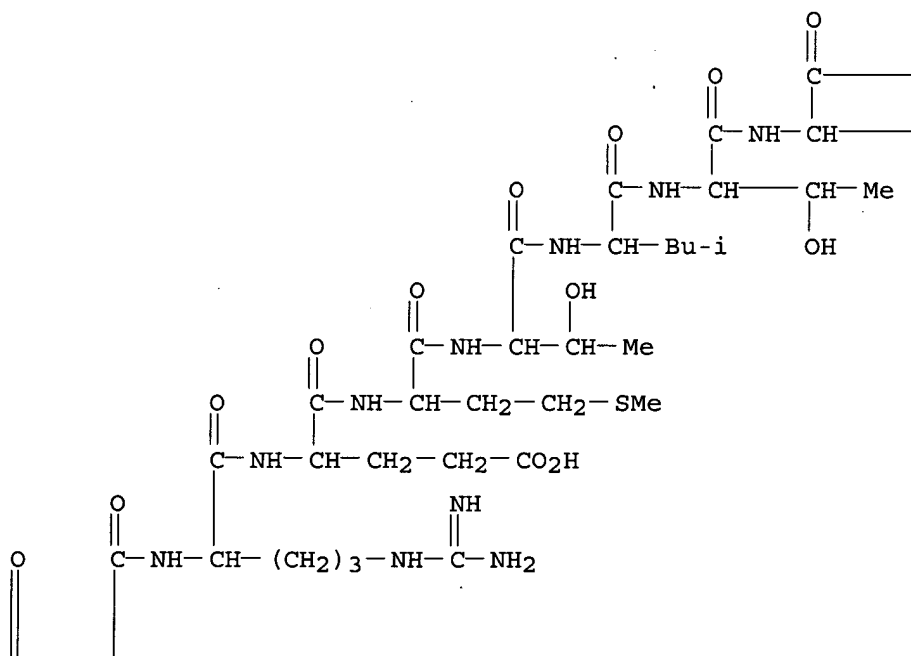
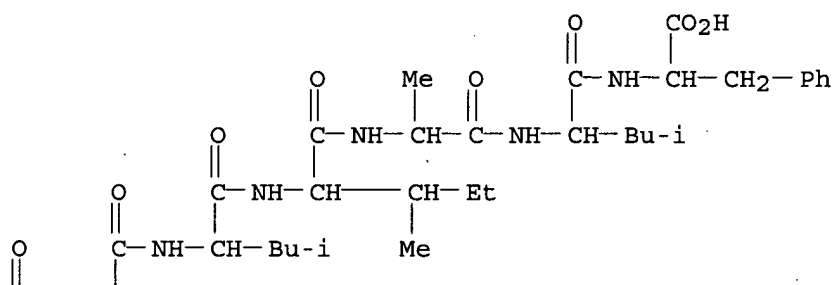
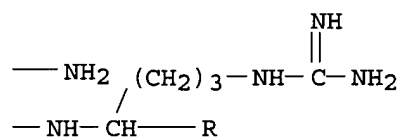


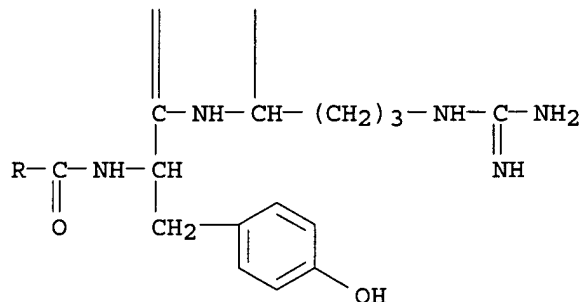
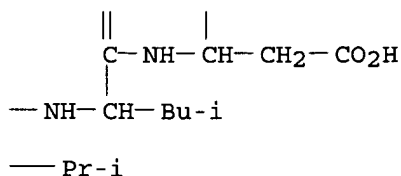
L12 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1995:366552 CAPLUS  
 DN 122:180724  
 TI The assembly and organization of the .alpha.5 and .alpha.7 helixes from  
 pore-forming domain of *Bacillus thuringiensis* .delta.-endotoxin. Relevance

to a functional model

- AU Gazit, Ehud; Shai, Yechiel  
 CS Dep. Membrane Research Biophysics, Weizmann Inst. Science, Rehovot, 76100, Israel  
 SO Journal of Biological Chemistry (1995), 270(6), 2571-8  
 CODEN: JBCHA3; ISSN: 0021-9258  
 PB American Society for Biochemistry and Molecular Biology  
 DT Journal  
 LA English  
 AB The pore-forming domain of *Bacillus thuringiensis* insecticidal CryIIIA .delta.-endotoxin contains 2 helices, .alpha.5 and .alpha.7, that are highly conserved within all different Cry .delta.-endotoxins. To gain information on the mode of action of .delta.-endotoxins, a spectrofluorimetric approach was used to characterize the structure, the organization state, and the ability to self-assemble and to co-assemble within lipid membranes of .alpha.5 and .alpha.7. CD spectroscopy revealed that .alpha.7 adopts a predominantly .alpha.-helical structure in MeOH, similar to what has been found for .alpha.5, and consistent with its structure in the intact mol. The hydrophobic moment of .alpha.7 is higher than that calcd. for .alpha.5; however, .alpha.7 has a lesser ability to permeate phospholipids as compared to .alpha.5. Binding expts. with 7-nitrobenz-2-oxa-1,3-diazole-4-yl (NBD)-labeled peptide demonstrated that .alpha.7 binds to phospholipid vesicles with a partition coeff. in the order of 10<sup>4</sup> M<sup>-1</sup> similar to .alpha.5, but with reduced kinetics and in a noncooperative manner, as opposed to the fast kinetics and cooperativity found with .alpha.5. Resonance energy transfer measurements between **fluorescently** labeled pairs of donor (NBD)/acceptor (rhodamine) peptides revealed that, in their membrane-bound state, .alpha.5 self-assocs. but .alpha.7 does not, and that .alpha.5 coassembles with .alpha.7 but not with an unrelated membrane bound .alpha.-helical peptide. Furthermore, resonance energy transfer expts., using .alpha.5 segments, specifically labeled in either the N- or C-terminal sides, suggest a parallel organization of .alpha.5 monomers within the membranes. Taken together the results are consistent with an umbrella model suggested for the pore forming activity of .delta.-endotoxin (Li, J., Carroll, J., and Ellar, D. J. (1991)), where .alpha.5 has transmembrane localization and may be part of the pore lining segment(s) while .alpha.7 may serve as a binding **sensor** that initiates the binding of the pore domain to the membrane.
- IT **161564-52-9**  
 RL: PRP (Properties)  
 (amino acid sequence; assembly and organization of the .alpha.5 and .alpha.7 helices from pore-forming domain of *Bacillus thuringiensis* .delta.-endotoxin)
- RN 161564-52-9 CAPLUS  
 CN L-Phenylalanine, L-tyrosyl-L-.alpha.-glutamyl-L-seryl-L-tryptophyl-L-valyl-L-asparaginyl-L-phenylalanyl-L-asparaginyl-L-arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-.alpha.-glutamyl-L-methionyl-L-threonyl-L-leucyl-L-threonyl-L-valyl-L-leucyl-L-.alpha.-aspartyl-L-leucyl-L-isoleucyl-L-alanyl-L-leucyl-(9CI) (CA INDEX NAME)







L12 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1992:208225 CAPLUS

DN 116:208225

TI Induction of calcium transport in liposomes by insulin

AU Brimble, K. Scott; Ananthanarayanan, Vettai S.

CS Dep. Biochem., McMaster Univ., Hamilton, ON, L8N 3Z5, Can.

SO Biochimica et Biophysica Acta (1992), 1105(2), 319-27

CODEN: BBACAQ; ISSN: 0006-3002

DT Journal

LA English

AB The requirement of extracellular  $\text{Ca}^{2+}$  for insulin action has been indicated by past studies. With a view to understand the interaction of insulin with  $\text{Ca}^{2+}$  in the vicinity of the cell membrane, the ability of insulin and its constituent polypeptide chains A and B to translocate  $\text{Ca}^{2+}$  and  $\text{Mg}^{2+}$  across the lipid bilayer was examd. in two sets of synthetic liposomes. The first were unilamellar vesicles made of dimyristoylphosphatidylcholine and contained the  $\text{Ca}^{2+}$  sensor dye arsenazo III. Peptide-mediated  $\text{Ca}^{2+}$  and  $\text{Mg}^{2+}$  transport in these vesicles was monitored at 37.degree. in a neutral buffer contg.  $\text{CaCl}_2$  or  $\text{MgCl}_2$  using a difference absorbance method. In the second set, multilamellar vesicles of egg lecithin contg. trapped fura-2 were employed and the cation transport was followed at 20.degree. by fluorescence changes in the dye. Control expts. indicated that the hormonal peptides caused no appreciable perturbation of the vesicles leading to leakage of contents or membrane fusion. In both liposome systems, substantial  $\text{Ca}^{2+}$  and  $\text{Mg}^{2+}$  transport was obsd. with insulin and the B chain; the A chain was less effective as an ionophore. Quant. anal. of the transport kinetic data on the B chain showed a 1:1 peptide- $\text{Ca}^{2+}$  complex formed inside the membrane. In light of the available structural data on  $\text{Ca}^{2+}$  binding by insulin and insulin receptor, the results suggest the possibility of the hormone interacting with the receptor with the bound  $\text{Ca}^{2+}$ .

IT 17289-65-5, Insulin (ox-A reduced)

RL: BIOL (Biological study)

(calcium and magnesium transport response to, in liposomes)

RN 17289-65-5 CAPLUS

CN Insulin (cattle-A reduced) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Chemical structure 1 is a complex peptide derivative. It features a central chain of amino acid residues including a p-hydroxyphenyl group, a proline ring, and a thioether linkage. The structure is highly branched and includes various functional groups like amide, thiol, and carboxylic acid.

The chemical structure represents a branched poly(2,2'-thiobis(5-hydroxy-3-phenylacetamido)) polymer. It features a central carbon atom bonded to two sulfur atoms, which are part of thioether linkages to 2-amino-3-phenylpropanoate moieties. The side chains are labeled with 'Bu-i', 'R', 'Pr-i', 'Me', and 'R'. The structure is shown in a perspective view, with the central carbon atom at the top and the side chains extending downwards. The side chains are labeled with 'Bu-i', 'R', 'Pr-i', 'Me', and 'R'.



09567863

=>

=> file biosis medline caplus wpids uspatfull

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

96.87

430.45

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-11.07

-16.28

FILE 'BIOSIS' ENTERED AT 15:05:54 ON 04 SEP 2003

COPYRIGHT (C) 2003 BIOLOGICAL ABSTRACTS INC. (R)

FILE 'MEDLINE' ENTERED AT 15:05:54 ON 04 SEP 2003

FILE 'CAPLUS' ENTERED AT 15:05:54 ON 04 SEP 2003

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WPIDS' ENTERED AT 15:05:54 ON 04 SEP 2003

COPYRIGHT (C) 2003 THOMSON DERWENT

FILE 'USPATFULL' ENTERED AT 15:05:54 ON 04 SEP 2003

CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

\*\*\* YOU HAVE NEW MAIL \*\*\*

=> s sensor and modular fluoresce?

L13 11 SENSOR AND MODULAR FLUORESCENCE?

=> dup rem l13

PROCESSING COMPLETED FOR L13

L14 6 DUP REM L13 (5 DUPLICATES REMOVED)

=> d l14 bib abs 1-6

L14 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:405868 CAPLUS

TI Tuning saccharide selectivity in modular fluorescent sensors

AU Arimori, Susumu; Consiglio, Giuseppe A.; Phillips, Marcus D.; James, Tony D.

CS Department of Chemistry, University of Bath, Bath, BA2 7AY, UK

SO Tetrahedron Letters (2003), 44(25), 4789-4792

CODEN: TELEAY; ISSN: 0040-4039

PB Elsevier Science Ltd.

DT Journal

LA English

AB Five modular photoinduced electron-transfer (PET) sensors bearing two phenylboronic acid receptors with different fluorophores have been prepd. The sensors' interaction with saccharides was assessed via fluorescence spectroscopy. It was shown that monosaccharide selectivity is influenced by the choice of fluorescent moiety.

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 2 OF 6 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN  
DUPLICATE 1

AN 2002:337566 BIOSIS

09567863

DN PREV200200337566  
TI Photo-induced electron transfer fluorescent **sensor** molecules.  
AU Arimori, Susumu (1); James, Tony D.  
CS (1) Bath UK  
ASSIGNEE: Beckman Coulter, Inc.  
PI US 6387672 May 14, 2002  
SO Official Gazette of the United States Patent and Trademark Office Patents,  
(May 14, 2002) Vol. 1258, No. 2, pp. No Pagination.  
<http://www.uspto.gov/web/menu/patdata.html>. e-file.  
ISSN: 0098-1133.  
DT Patent  
LA English  
AB Disclosed is a **modular fluorescence sensor**  
having the following general formula: ##STR1## where F1 is a fluorophore,  
N is a nitrogen atom, Bd1 and Bd2 are independently selected binding  
groups, Sp is an aliphatic spacer, and An is an anchor group for attaching  
the **sensor** to solid substrates. n=1 or 2, m=1 or 2, x is an  
integer, and y=1 or 2. The binding groups are capable of binding an  
analyte molecule to form a stable 1:1 complex. In a preferred embodiment,  
the Bd1 is R1 --B(OH)2 and Bd2 is R2 --B(OH)2. R1 and R2 are aliphatic or  
aromatic functional groups selected independently from each other and B is  
a boron atom. The present invention also provides methods of synthesizing  
a **modular fluorescence sensor** and its use in  
labeling solid substrates.

L14 ANSWER 3 OF 6 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN DUPLICATE 2  
AN 2003-465928 [44] WPIDS  
CR 2002-498543 [53]; 2003-328392 [31]  
DNC C2003-124151  
TI **Modular fluorescence sensor** used for assays  
especially in flow cytometry.  
DC A89 B04 D16  
IN ARIMORI, S; JAMES, T D  
PA (BECI) BECKMAN COULTER INC  
CYC 1  
PI US 2002115096 A1 20020822 (200344)\* 11p  
ADT US 2002115096 A1 Div ex US 2000-729332 20001204, US 2002-53274 20020117  
FDT US 2002115096 A1 Div ex US 6387672  
PRAI US 2000-729332 20001204; US 2002-53274 20020117  
AN 2003-465928 [44] WPIDS  
CR 2002-498543 [53]; 2003-328392 [31]  
AB US2002115096 A UPAB: 20030710  
NOVELTY - A new **modular fluorescence sensor**  
of formula (I).

DETAILED DESCRIPTION - A **modular fluorescence sensor** of formula (I) is new.

F1 = a fluorophore;  
Bd1, Bd2 = binding groups capable of binding an analyte molecule to  
form a stable 1:1 complex;  
Sp = an aliphatic spacer;  
A = an anchor group for attaching the **sensor** to a solid  
substrate;  
m,n = 1 or 2; and  
x = an integer.

INDEPENDENT CLAIMS are also included for:

(1) preparation of (I); and  
(2) labeling solid substrates comprising:  
(a) providing a solid substrate;  
(b) proving the **modular fluorescence sensor** (I); and  
(c) reacting the **sensor** with the solid substrate under  
conditions allowing attachment of the **sensor** to the substrate.

09567863

USE - The sensors are used in both homogeneous and heterogeneous assays of biochemical samples, they are particularly useful for flow cytometry.

Dwg.0/3

L14 ANSWER 4 OF 6 MEDLINE on STN DUPLICATE 3  
AN 2002683199 MEDLINE  
DN 22331557 PubMed ID: 12443070  
TI A **modular fluorescence** intramolecular energy transfer  
saccharide **sensor**.  
AU Arimori Susumu; Bell Michael L; Oh Chan S; James Tony D  
CS Department of Chemistry, University of Bath, Bath, BA2 7AY, UK.  
SO ORGANIC LETTERS, (2002 Nov 28) 4 (24) 4249-51.  
Journal code: 100890393. ISSN: 1523-7060.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 200302  
ED Entered STN: 20021122  
Last Updated on STN: 20030206  
Entered Medline: 20030205  
AB [structure: see text] A **modular fluorescence**  
intramolecular energy transfer saccharide **sensor** 2 has been  
prepared with phenanthrene as the donor and pyrene as the acceptor.

L14 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2002:173488 CAPLUS  
DN 137:134121  
TI **Modular fluorescence** sensors for saccharides  
AU Arimori, Susumu; Bell, Michael L.; Oh, Chan S.; Frimat, Karine A.; James,  
Tony D.  
CS Department of Chemistry, University of Bath, Bath, BA2 7AY, UK  
SO Journal of the Chemical Society, Perkin Transactions 1 (2002), (6),  
803-808  
CODEN: JCSPCE; ISSN: 1472-7781  
PB Royal Society of Chemistry  
DT Journal  
LA English  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Modular photoinduced electron transfer (PET) sensors bearing two  
phenylboronic acid groups, a pyrene group and alkylene linkers, from  
trimethylene to octamethylene, were prep'd. and evaluated. The diboronic  
acid systems with tetramethylene I (n = 4) pentamethylene I (n = 5) and  
hexamethylene I (n = 6) linkers display the greatest enhancement in  
binding relative to monoboronic acid II with D-glucose. The diboronic  
acid system with the hexamethylene I (n = 6) linker is particularly  
D-glucose selective and sensitive. While the diboronic acid systems with  
the longer heptamethylene I (n = 7) and octamethylene I (n = 8) linkers  
display the greatest enhancement in binding relative to monoboronic acid  
II with D-galactose. All saccharide titrns. were performed in methanolic  
aq. soln.

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN

09567863

AN 2001:694169 CAPLUS  
DN 136:63288  
TI **Modular fluorescence** sensors for saccharides  
AU Arimori, Susumu; Bell, Michael L.; Oh, Chan S.; Frimat, Karine A.; James, Tony D.  
CS Department of Chemistry, University of Bath, Bath, BA2 7AY, UK  
SO Chemical Communications (Cambridge, United Kingdom) (2001), (18), 1836-1837  
CODEN: CHCOFS; ISSN: 1359-7345  
PB Royal Society of Chemistry  
DT Journal  
LA English  
AB Modular and modular polymer supported fluorescence photoinduced electron transfer (PET) sensors with two boronic acid receptor units, a pyren-1-yl fluorophore, and hexamethylene linker show selective saccharide binding in aq. methanolic soln. at pH 8.21.  
RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=>